Designing Strategy: The Gameplay

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January 16, 2003 - In my opinion, strategic games have two core elements. First there are the components — those pieces that you actually use to play the game with, be they tokens or the board itself — which I discussed last week in *Trials, Triumphs & Trivialities #102*, Designing Strategy: The Components. Second, there is the gameplay — how the game actually works — and that's what I plan to talk about this week.

Types of Gameplay

Gameplay is, to be frank, a huge issue. It's really what a strategy game is all about; even the question of what components to use, is largely determined by what your gameplay is like.

As a result, I'm actually going to be spending most of this lengthy series on strategy games discussing gameplay. In upcoming weeks I'm going to look into how to manage randomness and decisions, how to figure out phases of a game, how to expand and vary upon a successful core — and probably some other things that I haven't thought about yet. That's all gameplay.

But at the same time I think there are some simple *overviews* of gameplay which you can analyze and which can tell you a lot about a game. As with my discussion of components last week I hope they'll help you to think about different designs for games, to see what's been done and what hasn't.

I divide my overview of gameplay up into two types: *activity* and *victory*. Activity defines what each player does over the course of the game while victory defines what he does to win the game. The possible categories for these two types of gameplay are *much* more varied than my listings for components. Really, the only limit to gameplay is your imagination.

Nonetheless, I've tried to include the most common categories for activity and victory, and I've also tried to make these categories as "wide" as possible. You'll still probably be able to come up with some games that don't fit into my scheme.

Types of Activity

Before I present my list of activities — what the players do during the game — I should define what I mean by "interacting". A player might be interacting with other players or with the game system itself. For example, in the case of a token game, it could be the other player capturing your tokens, as in Chess, it could be the game system squishing them with its own monsters, as in *Arkham Horror*, or it could be arbitrary game rules determining their death, as in *Black Death*.

The following general categories of activity seem pretty common in strategy games:

Token Interaction Games: Players interact through the capture or destruction of tokens. Most frequently they are actively destroyed by other players, but they could also be destroyed by the player himself, as part of a "cost" for an action, or they could be destroyed by specific rules set out by the game system. *Examples:* Chess (destruction), Othello (capture), Risk (destruction).

Environment Interaction Games: Players interact through the meaningful capture or destruction of environment. Most frequently, games that are token conquest are also environment conquest, and vice versa, but that doesn't need to be the case. Checkers is a good example of a token conquest game without the environment conquest element, because a checker piece's locale is totally transient. Tic Tac Toe and *Twixt* are two examples of the converse; you're capturing the environment in various ways without actually harming the other players' tokens. *Examples:* Risk (capture), Sid Meier's Civilization 3 (capture with some destruction possibilities late game), Twixt (capture).

Marker Collection Games: Players interact through the collection of some type of marker, usually money. A few games involve players acquiring items directly from the game system, but complex methods of marker acquisition appear more frequently. More common are "trading" games where players interact by giving items they don't want away in return for items they do want. Another variant is the "auction" game, where the trading is much more heavily influenced by who is willing to offer the most (and in which the trades are more frequently with the game system, ala a bank, than with other players). Yet another weird trading variant is the "coalition" game where you're trying to convince other people to do what you want... and that's usually in return for your doing something they want. Finally you can also have "bidding" or "betting" games, where you're exchanging items for futures. *Examples:* Avalon Hill's Civilization (trading), Dogma (coalition), Poker (betting), Res Publica (trading), The Settlers of Catan (trading), The Settlers of Alexander (auction), Titan: The Arena (bidding).

Movement Games: Players interact by moving a limited number of tokens across an environment using simple, pre-defined and usually random movement methods. The environment is usually a one-dimensional racetrack, but could also involve multiple one-dimensional racetracks, or a two-dimensional space or in rare cases of games involving flying machines, three-dimensional space. *Examples:* Backgammon (1D), Formula De (1D), The Game of Life (1D with

branches), Reiner Knizia's The Lord of the Rings (multiple 1D), The Riddle of the Ring (2D, though practically 1D with branches for the most part), Trivial Pursuit (1D).

Exploration Games: Players interact by dynamically expanding an evolving board game. Some variants allow for arbitrary exploration, where new lands are picked from a limited deck, and other allow for totally random exploration, this latter category usually involving either computers or crayons. *Examples:* The Seafarers of Catan (arbitrary), The Source of the Nile (random).

Building Games: Players interact by slowly building... something. It could be a city, a civilization, a car, or whatever. There tend to be limited resources which are used to build the item, and thus hard decisions must be made. Different games can have dramatically different limitations on how much can be built. Some allow very singular choices for building, some an average set of 5-7 choices, and some a huge set of building choices which must be broken down into decision trees to become sensical. *Examples:* Monopoly (singular choice), The Settlers of Catan (average choice), SimCity (large choice).

Even moreso than the token variants that I talked about last week, activity types are combined a *lot*. In fact, it's pretty hard to find a game that's "pure" — involving only one type of activity. And, for me at least, the "pure" games tend to be the more boring ones. As a designer you need to be very careful about overloading too many different general activity types, and thus turning your game into a very complex mess, but mixing in a couple might not be that bad of an idea.

I've already mentioned that a lot of games combine both token and environment conquest. Monopoly is a movement game and a building game with minor trading (marker) possibilities. The Settlers of Catan is a building game and a trading (marker) game, with very minor elements of environment conquest. The Seafarers of Catan takes all of those elements and also adds on an exploration element. Conversely, Res Publica is almost purely a trading game, while Candyland is almost purely a movement game.

In trying to classify games, as I will in weeks to come, I think I'd list out the various gameplay elements by whether they were *core* (ie, the simple most important real heart of the game),*important* (ie, a fairly notable gameplay element), or *minor* (ie, there, but sometimes forgettable). Looking at my previous examples, I think I'd call Monopoly a game with building as core, movement as important, and marker/trading as minor. The Settlers of Catan would have building as core, marker/trading as important, and environment as minor.

A final sidebar before I move on: all these sorts of activity, and their associated victories, can really be seen as acting on your three types of components in different ways. In "token" gameplay you're capturing or destroying tokens, while in "movement" gameplaying you're moving tokens, and in "building" gameplay you're placing new tokens (or sometimes markers) on the board; in "environment" gameplay you're capturing or destroying environment, while in "exploration" gameplay you're creating it. I thought about revamping my organization to outline each type of gameplay as an interaction with components, but have instead decided to maintain the above categories, because it's a bit more obvious what they mean. Simply keep in mind that these classification ultimately do break down to interactions with components, and that if you want to develop totally new types of gameplay, you can start by looking at other ways that components might be manipulated.

Types of Victory

It's pretty easy to tie each of my categories of activity to a very specific type of victory. And, that's what I've done below in my list of victories. However, when we chart things out in a moment we'll see that type A victory doesn't always have to link up to type A activity in a complex strategic game.

For example you might have a game where the activity was moving along a racetrack, and the victory was based on the collection of "victory markers". At any time the person in the lead is going to have first selection of victory markers, and will thus usually choose the best one, but you suddenly have a whole different level of strategy where players might use different limited resources in order to surge ahead at certain times and collect victory markers which are of particular relevance to them. And thus the person who's ahead at the end might not be the actual winner.

Nonetheless, here's the easy, correlated victory list. We'll talk more about how the activity-victory correlation can waver a bit later.

Token Acquisition or Destruction: You are the last man standing. Or, you've taken core tokens belonging to an opponent, or alternatively have taken enough tokens to make it obvious that you deserve to be the winner. *Examples:* Checkers, Chess, Othello, Stratego.

Environment Acquisition or Destruction: You control more environment than anyone else. Or, alternatively, you control the specific bits of environment that were declared to be the victory conditions at the start of the game. Typically called "empire building games". *Examples:* Tic-Tac-Toe, most miniature war games.

Marker Acquisition or Destruction: You control more of a specific marker (usually money) than anyone else. Really, this just means that you've defined your victory points as a fairly specific marker in a game; nonetheless the feel of these "marker acquisition" games where you hoard and hide money is fairly distinctive. The pie slices in Trivial

Pursuit and the information in Clue are effectively types of markers that you're trying to acquire too. *Examples:* Clue, Empire Builder, Monopoly, Trivial Pursuit.

Best Racer: You arrive at the "end" of the game before anyone else. As I mentioned last week, race tracks are often glorified scoreboards, and thus this too can be a goal that's really the same thing as saying most "victory points", but once more their feel is pretty distinctive (and you can also vary this type of victory with the aforementioned 2-D or 3-D boards). *Examples:* Candyland, Formula De.

Best Explorer: You win by being the best explorer. Perhaps you collect specific markers as you explore, perhaps the victory condition is just set as the first person to turn over 20 new hexes. *Examples:* Battleship, Hunt the Wumpus, The Source of the Nile.

Best Builder: You win by having done the best job of building. Perhaps the actually victory condition is a side effect of your building, but it's still very directly related. *Examples:* The Settlers of Catan, Sid Meier's Civilization 3.

Strategic games tend to have just one type of victory condition, but they can be combined in a couple of ways:

1. **Summed Victory Conditions:** Some games have victory conditions summed up from a variety of sources (e.g., get 10 victory points total, with the following items being worth 3 points each...). This could allow the awarding of points for different categories of victory conditions. As an example, *Cities & Knights of Catan* gives almost all of its points for "best builder" but it's also possible to get a couple of points from what amounts to "token destruction" — holding off the barbarian hordes with your own knights.

2. **Multiple Victory Conditions:** Some games allow victory to be won in a variety of different ways, and the first person to any of those conditions wins. *Sid Meier's Civilization 3* is a good example of a game with a half-dozen victory conditions. A lot of them amount to "best builder", but "token destruction" and "environment acquisition" are also possible.

3. **Different Victory Conditions:** In some games different players have different victory conditions. Flying Buffalo's classic *Starweb* is a good example of a game where different races have different victories: Berserkers try and destroy worlds (environment destruction), Empire Builders try and occupy them (environment acquisition), artifact collectors try and collect artifacts (marker acquisition), etc. A simpler example is *Mystic War*, where players each draw a card that tells them varying levels of magic, gold, and followers that they should try and collect during the game (all marker acquisition, but at different levels for each player).

You can also categorize victory conditions based on who can win, in a way somewhat orthogonal to my above list. You can have *no victory*, an utterly rare variant that I've only ever seen in the board game world in *The Ungame*, though it can also appear in longer-term non-tabletop games like *Beyond the Stellar Empire*. You can have *joint victory* where there's an option for a group of people — not necessarily set at start — to all win together. And finally you can have *player victory* where either the players win or the game system wins, as is the case in *Arkham Horror* or *Reiner Knizia's The Lord of the Rings*.

Linking Activity & Victory

Before closing the book on activity and victory I want to address one more time, in a bit more depth, the relationship between activity and victory. As I've said, the fairly normative state in a strategy game is for the core activity to lead directly to the victory. Ignoring the complications of multiple victory conditions that I just discussed, there are only two general categories that can cause this simple causal relationship to change:

Dependence on Lesser Gameplay: Some games will associate their victory with a non-core activity — potentially an important activity but in weird cases perhaps a minor activity. A good example of this is the card game, *Titan: the Arena*. In this game each player bets upon certain arena monsters, hoping that they will survive until the end of the game. Then, they play cards to kill certain monsters and raise others up to victory. The core gameplay is thus "token" play, with "marker" play (in its "bidding" form) only an important gameplay element. Victory, however, is ultimately based upon those bids.

Linking Results: In other games the victory is one step removed from the activity, but still very directly related. As I've already noted I think the core gameplay in Monopoly is building. However, it's through marker acquisition ($$$) that the winner of the game is determined. The best builder will, generally, acquire the most markers, but there's a level of indirection between the two — a link.

The best complex games that I've seen tend to provide several links in their victory chain. *The Settlers of Nurnberg* is a good example of this philosophy. It links through two different game environments and a number of distinct phases of activity and victory.

Players start out on an environs map and acquire markers there in order to build environs tokens that increase their ability to acquire more markers. At a certain point they've acquired enough to start building tokens on a separate city board. Once they've done that they can start trading manufactured items which produce gold markers for them, which can be in turn used to construct walls and towers, which in turn produce prestige markers... and thus some of the victory points for the games.

Looking at this analytically we have multiple instances of "building" gameplay chaining to "marker" victory, which in turn chains back to different types of "building" gameplay and even more types of "marker" victory.

The whole point of developing chains like this is to allow for increased complexity without also increasing the size of individual decision matrixes, and thus making the game too difficult to play... a topic which I'll get back to next month.

Putting It All Together

With all that said, you can now lay out a chart showing types of activity versus types of victory, just like I did last week when I was laying out the two major classifications of components. To a certain extent this chart is less interesting than my component chart because so many activities and victories do correlate in a normative, expected method.

But, this chart shows you that, first of all, there are exceptions, and thus, second of all, that normative correlation is not required. Hopefully this chart allows you to consider all your options like my components chart, last week, did.

In my examples below I've only concerned myself with what I consider the "core" activity of a game and the most frequent victory, if there are multiple ones.

Victory	Activity					
	Token Interaction	**Environment Interaction**	**Marker Collection**	**Movement**	**Exploration**	**Building**
Token Acquisition or Destruction	*Checkers*	?	?	?	?	?
Environment Acquisition or Destruction	miniatures	*miniatures*	?	?	Carcassonne	Sid Meier's Civilization 2
Marker Acquisition or Destruction	Titan: The Arena	?	*Res Publica*	Clue	?	Monopoly
Best Racer	?	Twixt	Reiner Knizia's The Lord of the Rings	*Formula De*	?	?
Best Explorer	?	?	?	?	*Battleship*	?
Best Builder	?	?	The Settlers of Alexander	?	?	*Sid Meier's Civilization 3*

As you can see, it is indeed a bit hard to find games with orthogonal activity and victory, but they do exist as a small percentage of the total.

A Few Alternatives

I'm fairly happy with my listing of activity v. victory as a good method to use to provide an overview of a game's play. However, it's clearly not the only way to describe gameplay. A few other possibilities that are beyond the scope of this article include:

Abstraction: What level of thinking are you working at, and related what decisions does that allow you? Tactical, logistical, and strategic are common categories when examining levels of abstraction. Overviewing things in this way opens up a whole host of questions about how your strategy (or tactics or logistics) really work.

Skill: What skills is a player required to have to undertake the activities in this game? For example does knowledge (such as memorizing a list of cards and powers) increase his chance for victory? How about dexterity (which is the case in James Earnest's Diceland), wit (i.e., storytelling games), memory (i.e., Concentration), or deduction (i.e., Clue, sort of)?

The Web Game Coda

Generally, web games will have the same types of activity and victory as tabletop strategy games, but some activities and victories might be more or less common within the web paradigm.

On the less common side, "best racer" victories doesn't tend to show up quite as much in web games, just because the "racetrack" layout isn't that appealing in a web page.

On the more common side, games with "exploration" gameplay tend to be more common in web games, because web games are better at arbitrating hidden information on a player-by-player basis. Also the "no victory" victory type that I mentioned briefly as an aside does show up on occasion in web games because of the fact that they're sometimes very open-ended. That's, in fact, a way that some strategy web games are slowly shading back to RPG gameplay.

Overall I think my entire gameplay matrix is pretty applicable for game design. If anything, more orthogonal activity/victory combinations are possible due to the fact that you can chain activity and victory in more complex ways in a medium where the computer can keep track of things for you.

And Onward...

Special thanks this week to Quigg, who suggested alternative ways to classify gameplay, to Saul Bottcher, who gave me ideas about some weird combinatorial, shared, or absent victory conditions, and to Christopher Allen who did both.

Next week I'm going to be finishing up one last bit of introduction for this series, by describing what a web game really is, and what it looks like when you break it down. After that I'll start exploring some of the concepts we've looked at to date in more detail... and also examining the anatomy of a few games in gory detail.

I'll see you in 7.