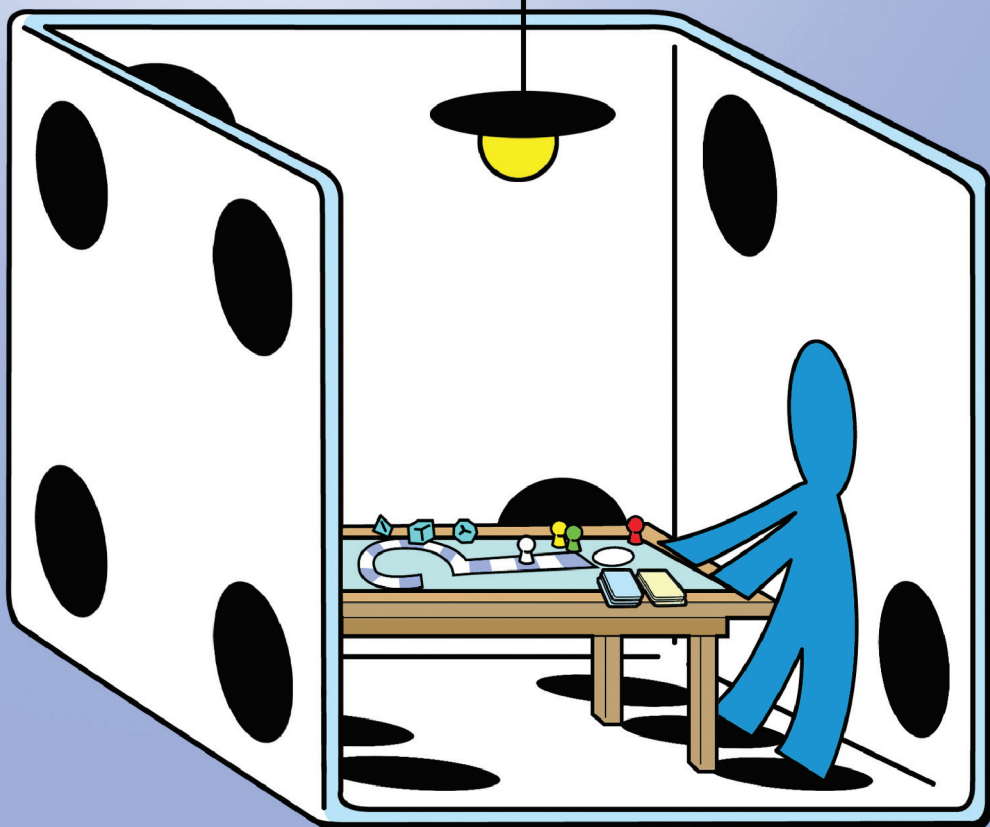# The KOBOLD guide to
# BOARD GAME DESIGN

## by Mike Selinker
with James Ernest,
Richard Garfield,
Steve Jackson
and a dozen more of the
world's best game designers



*"I wish I had a book like this twenty years ago."*
*- Bruno Faidutti, designer of Citadels*

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# Developing Dominion

*What Game Development Is All About*

by Dale Yu

*Not many games make every other designer insanely jealous. Rio Grande Games's* Dominion *is one of those games. It took the gaming world by surprise in 2008, outselling everything and winning every award. Dale Yu was on* Dominion's *development team, so I've asked him to share with us how it all came together. Mostly because I wanted to know. Fair warning: This essay contains rules specific to* Dominion*, and Dale doesn't waste space explaining them. If you don't know how to play it, take this opportunity to learn. Because honestly, if you're a designer, you can't not know how to play* Dominion.

In the long process from initial prototype to published game, most game designs go through a development stage. Game development is one of the final steps that a board game must go through prior to publication. To paraphrase BASF: Game developers don't design a lot of the games you buy, they make a lot of the games you buy better….

In the development stage, the designer's final game submission is prepared to ready it for market by the developer. Rough edges are smoothed over, and the rules are tweaked to ensure a good game experience. Usually, the main ideas and mechanics of a game are unchanged through development—though just about anything is fair game to be modified if the change will result in a better game.

When my family members or other non-gamers ask what I do as a developer, I explain it this way: "Think of my job as being similar to that of a book editor, except that I work with board games instead of books. I take the prototype (manuscript) from the game designer (author), and then go over everything with a fine-toothed comb. My goal is to make sure that the published version is the best possible game for the company that will publish it." I'm always quick to point out that there is a huge difference between a game *developer* and a game *designer*. The inspiration for the game and the bulk of the original ideas come from the designer. The developer takes these ideas and creates a finished product from them.

Although there is no set "development pathway" that outlines what needs to be done for every game, there are a few things that commonly occur in the development process. I'll discuss those here, and I'll include a few examples that came up as I was developing *Dominion* along with my development partner, Valerie Putman.

# INITIAL PLAYTESTING

The first thing that I do when I get a new project is to play the game using the rules provided. If possible, I learn the game straight from the rules and avoid getting any help or strategy tips from the designer or players who have played before. These initial plays will be my only opportunity to play the game as a "newbie," and I'd like to have that newbie experience as much as possible. For the first two or three plays, I simply play the game, trying to figure out the different workable strategies on my own. As I'm learning the game, I will write down any questions that arise while we learn the game. I also note the basic strategies used by the players and which ones were successful. Finally, I note any mechanics that feel awkward or that we needed to refer back to the rules to figure out.

Once I have a few game sessions under my belt, I'll take a step back and review individual mechanics. I'd like to see that every component of gameplay is a necessary part of the game, and I'd like to ensure that each mechanic works as simply as possible. Overly complicated elements in a game are often misunderstood or mislearned, and this leads to a bad game experience. So, wherever possible, I keep things simple. While we were working on *Dominion*, the game initially came with two "empty" cards—the Curse (cost 0, worth –1 victory point) and the Confusion (cost 0, worth 0 victory points). While it was nice to have two cards that could muck up your opponent's deck, it just seemed to be too much. There was no reason to have two different cards which had such similar effects. So the decision was made to only have the Curse, and this seems to have kept the game streamlined.

Once I've identified the areas of the game that I'd like to work on, I'll play a few more games focusing on these individual mechanics or strategies. I am continually evaluating the game mechanics to make sure that they work and that they are simple. I also make a mental list of the main possible strategies and play them all. With *Dominion*, we evaluated different card combinations to see if one was consistently winning. Then, to balance things out, one of us would specifically play that strategy while the rest of us would come up with ways to win using some other approach. Even the very strong deck-thinning strategy focused around the Chapel card proved to be nowhere near invincible—and therefore, Chapel stayed in the game.

This is also the stage of development where I push the boundaries to unmask any flaws in the game. Essentially, I come up with the most extreme strategies I can think of to try to break the game. I know that most of the ideas that I come up with will have no chance to win, but I need to know that the game can still function (and be fun) even if one player decides to buy all of one particular commodity, hoard as many cards as possible, or any other such strategy.

We made a big breakthrough in the development of *Dominion* when we tried a strategy that is now known as the Duchy Rush. In the initial stage of the

game, *Dominion* ended when any one of the three Victory stacks were depleted. So, the Duchy Rush strategy had a simple algorithm: buying nothing if you had 0 to 2 coins in your hand, buying a Silver if you had 3 or 4 coins in your hand, and buying a Duchy if you had 5 or more coins in your hand. That's it. This strategy totally ignored all of the Kingdom cards on the table—and the Kingdom cards were supposed to be the big attraction of the game! Anyways, the Duchy Rush strategy turned out to be essentially unbeatable. The only way to beat it was to join in the strategy. So, to bring the Kingdom cards back in, the ending conditions were changed so that the game ended when either the Provinces were depleted or any three piles in the supply. We additionally increased the value of the Provinces from 5 victory points to 6. Now, there was definitely incentive to go for the higher valued Province cards. And the new end condition allowed the game to last long enough that players could develop a deck containing Kingdom cards and compete against someone who was buying up all the Duchies.

I will also set up highly improbable scenarios—creating a perfect storm of card draws, for example—to see how the rules handle these extreme conditions. Even if there is a situation that comes up once in a thousand games that "breaks" the game, you need to find that in development. Because if it makes it through to the final product, once someone discovers this broken situation, no matter how improbable, the online world will only focus on this flaw, and it will likely spell ruin for your game. One notable exception to this is *Balloon Cup*, a game in the 2-player line from Kosmos, which had a situation where the game could completely lock up. Despite this, a quick rules fix was published, and the game continued on to be nominated for Spiel des Jahres that year. But that is definitely the exception rather than the rule….

Pushing the boundaries of the game helps make sure that there are no "groupthink" strategies. As games are being designed, they are often played repeatedly by the designer and his or her game group. As they are all familiar with the game, their group may develop habits or tendencies in how they approach the game. The risk is that there may be strategies or situations that did not come up in the designer's playtesting, which can be exposed when someone is intentionally trying to break the game or when a complete newbie plays it without any preconceptions of the "right" way to play. In either event, the developers need to examine the game from all angles to make sure that the game doesn't break down when the unexpected happens.

## RULES

Once the major game mechanics are set, then it's time to focus on the rules. For me, the rules are of paramount importance because when a gamer is first introduced to the game, the rules are the only way that I have to communicate with them. The rules must be easy to read and understand, and there have to be enough illustrations and examples for any gamer to be able to play the game. Including a reference card, if possible, is also a big plus for me. Of

course, with *Dominion*, we didn't include a reference card—instead, we were able to come up with a pretty good mnemonic for the three phases of each turn: "A-B-C," for "Action, Buy, Cleanup." We highlighted this in the rules, and it turned out be a great way to help people remember what they are supposed to do each turn. Playtesting showed us that we didn't need a reference to remind people of the sequence as they were able to chant "A-B-C" during their turns.

Now, I'm not a graphic designer, so I leave the actual layout to someone else…but I definitely make sure that I keep an eye on how the layout process is going to ensure that the rules remain easy to read. Every time that I get a new version of the rules, I read every word making sure that no typos have slipped in.

## Blind playtesting

Once the main mechanics and rules are set, I usually embark on another round of playtesting to make sure that everything works. This next stage is the proving ground of development: the blind playtest. At this point, the game should be polished enough that any group should be able to pick it up and learn how to play it from the rules. And that's exactly what I try to do here.

I will give the game to a group of players, all of whom are new to the game, and ask them to read the rules, set up the game, and play. While I'll be present to watch them play, I tell them that I won't be able to answer any questions that may arise—if they have issues, they'll have to refer to the rulebook as the only authority. Of course, I'm there taking notes during the whole game recording where playtesters had issues with the setup and gameplay, and whether or not the rules were sufficient to answer those questions. Essentially, I'm trying to simulate a "first game" for a game group. First impressions are still the most important impressions to make, so I want to see that a group of gamers can get up and running with the game on their own.

At the end of the game, I'll have a bunch of questions to ask the playtesters. First, I need to know if they enjoyed the game, and if they thought it was fun. Second, I'll ask them about any issues they had with the rules or mechanics. Finally, I'll ask them if they think that anything can be improved. While most of the mechanics should be set at this point, you never know if an outsider might have some brilliant simplification of a rule or mechanic. In the same way that I'm worried about the designer's group having groupthink, I'd also like to try to make sure that my own group did not fall into the same groupthink trap!

After each game, it's time to put some more work back into the game—fixing up the rules if needed or tweaking things in the game itself based on the comments of the playtesters. In our work on *Dominion*, we were most focused on making sure that people could learn the game from the rules. There were a number of small but important timing rules (such as when to shuffle your discard pile), which were critical in making sure the game worked as intended.

We spent a lot of time working on the wording and illustrations in the rules to make sure that the gamers could understand these finer points of the rules.

We also worked very hard in this phase of *Dominion*'s development choosing cards to recommend for the First Game. In the same way that we wanted the rules to be easy enough to understand, we wanted to choose a set of cards that would get novice players up and running as soon as possible. The first thing we knew for sure is that the First Game couldn't include Curses. They simply slowed the game down too much, and they would be too much to handle for a new player. We also found that many of our blind playtesters got stuck with hands filled with terminal actions. Players were very frustrated to draw a hand of five Action cards, but not have any additional actions so that they could only choose one of the five cards to play, and then they had to discard the rest. From this experience, we learned that we needed to include as many cards with +1 Action as we possibly could so that novices would likely have a number of options with each hand regardless of which cards they bought. After we had set those two important parameters, we then chose cards to get every important term (Action, Buy, Trash, Draw, Reaction, Attack, Gain, etc.) in that first set of cards, so that players would be familiar with as much of the game as possible after that first game.

## TITLE AND THEMING

The final facet of the development stage was coming up with an appropriate theme and title. Although some games are completely built around a theme (that is, the story comes first and then a game is built around the constraints of that story), most games can be viewed in an abstract sense and then any theme can be "pasted" on to it. Again taking the example of *Dominion*, it is essentially a deck-building game. The theme and feel of the game comes from the titles of the card and the art. If Rio Grande Games had wanted a game with an outer space theme, Roman theme, or Egyptian theme, the card titles and art could have easily been molded to fit any of those concepts. At that time, Rio Grande Games had recently published *Race for the Galaxy*, which was set in outer space, so that pretty much eliminated that option. There had also been a recent glut of Roman- and pirate-themed games at that time, so we shied away from those themes as they seemed a bit stale at that point. As it turns out, the cards came to us with a medieval-ish theme, and this seemed like a good fit, so we didn't change it at all.

Once we had settled on the medieval theme, the last piece of the puzzle was coming up with a suitable title. The designer of the game gives most of his prototypes basic descriptive names. The initial name of the game was "Castle Builder." Although this name certainly helped people quickly identify it from all his other prototypes, it wasn't particularly catchy. It was difficult coming up with a title that evoked the sense of building that was central to the game, kept to the medieval theme, and wasn't already in use by another game.

I quickly thought of the title *Dominion*, which the dictionary defines as:

1. *Control or the exercise of control; sovereignty; or*
2. *A territory or sphere of influence or control; a realm.*

This met the criteria I had set out looking for a title, and it had the added benefit of not being tied to a particular time period. This became important with later expansions as the name did not limit us to any specific time frame or theme.

## CONCLUSION

Development is an important but often underappreciated part of a game's overall production. What needs to happen in this stage is extremely variable—dependent on the original prototype, dependent on the needs of the publisher, and dependent on the current gaming market. The developer is charged with taking the prototype, looking at it from a different perspective than the designer, and readying it for production. Some games may need a complete overhaul while others may not need much work at all. However, the development process is important in either case to make sure that the game is polished and meets the needs of the publisher. When the game feels "fully developed," that's when you know you've added something of value.

> **Dale Yu** *is the co-developer of the deckbuilding game Dominion, and its expansions Intrigue, Alchemy, Seaside, Prosperity, and Cornucopia. He is a columnist for boardgamenews.com, an administrator on boardgamegeek.com, and the founder and editor of opinionatedgamers. com. When he's not writing about board games, Dale is a physician in Cincinnati.*

# Stealing the Fun

by Dave Howell

*Over the years, I've been lucky to hear Dave Howell's "Golden Guidelines for Game Design" come together as Dave has thought of them. Many members of our circle of designers have internalized Dave's guidelines as gospel, and can hear his voice in our head when we go astray. I can't put them all in here, because that's an entire book. Which I hope Dave finishes someday. But for now, he's here to talk about whether the fun you think is in your game is still all there when you're done playing.*

Have you ever been stuck in one of those games where you've added up your points or calculated your unit strength or looked at your hand, and realized that, although the game isn't over yet, there's no possible way for you to win? So you have to spend the rest of the game being a "good sportsman," playing as if you care about the outcome, when you really just want to tell the guy across the table who's carefully looking at every card in his hand, "C'mon! Just pick one and play it! It doesn't matter anyway! Geez!"

I know I have. I've also played games where I wasn't necessarily guaranteed to lose, but it sure seemed that way, and finishing the game felt more like a chore than anything else. There are a number of ways that a game can steal the fun and leave a player with a bad taste in their mouth, but they all come out of one really important principle:

*A game is not fun unless a player believes they have some reasonable chance to win until the moment the game ends.*

Yeah, yeah, there are some freakishly rare exceptions. Some people will play a game they're practically guaranteed to lose because they'll learn something. Or they'll play to lose so that somebody else can be happy because they won (that is, "throw the game"). But in the normal world, 99.99% of all game players are playing to win, and because they think they can win.

Make sure you read the principle very carefully. For one thing, a player doesn't need a good chance to win. It can be a long shot. "Sure, I'm nearly a parsec behind the other players, but one of them might melt their engine, and another might hit a habitat or fall into a black hole; it could happen!" They just need some clutchable shred of hope in order to keep the fun alive.

Also, a player does not need to actually have "some reasonable chance" to win. They just have to believe that they do. It might really be 100,000 to 1 odds, or maybe if they remembered what the other players have in their "reserve stacks," they'd know it was hopeless. But as long as they think they

have a chance to win, the game can be fun. So let's look at some of the ways that games screw this up. What does a game need to avoid doing in order to help preserve a player's belief that they have a reasonable chance to win, right up until the game ends?

## GUIDELINE #1: DON'T KICK A PLAYER OUT BEFORE THE GAME IS OVER

The one surefire way to show a player that they don't have any chance of winning is to kick them out while the game's still going on. *Monopoly* is the poster child for this one. *Monopoly* also illustrates a corollary to Guideline #1, which is "Don't make a player wish they'd been kicked out." Long before Marco actually goes bankrupt and can leave the table, his financial situation is clearly poor enough that he knows he's going to lose. He has no reasonable chance of winning, but he's supposed to be a Good Sport and keep playing as if he might win, even though he'd much rather just strike a really cushy deal with some other player, sell out, and get out of the game.

Which leads us to Guideline #2...

## GUIDELINE #2: KINGMAKING SUCKS

"Kingmaking" is when a player is in a position to choose who gets to win the game, but cannot pick themselves. It comes in three different flavors.

### Guideline #2a: Never create a kingchooser

In the hypothetical game *Nine Rings of Maughbel*, Bonnie must draw a card and then pass it either to Amarion on her left or Christine on her right. Bonnie draws...a ring. Amarion and Christine both have eight rings, so Bonnie's next move will make one of them win the game.

For whatever reason, Bonnie gives the card to Amarion. Does he get to enjoy the win, knowing that all the previous effort he'd put into the game had come down to merely a mental coin flip, or because Bonnie is his girlfriend? Probably not. Since Bonnie had no strategic or tactical reason, no in-game reason whatsoever, to pick one or the other, Christine feels that they might as well have just dealt out playing cards to see who got the ace of spades first. It'd have been a lot faster than playing this dumb game.

### Guideline #2b: Don't reward a kingmaker

If a game robs a player of the hope of winning, then it really ought to avoid making it more fun to lose by throwing the game. *Risk* is the classic example of this. Damian is one of three players left in the game, and he's clearly the weakest. What he's supposed to do is keep fortifying his position, shrinking down as the other players attack him to win their bonus cards, until one of them thinks they can wipe him off the board, take his remaining cards, and thus win the game. I've never actually seen that happen. Instead, Damian, who's tired of waiting to be killed, will make a kamikaze attack on Ed. Damian won't be able to eliminate Ed, and the attack will leave both of them so weak

that Fiona will crush them, but it was a heck of a lot more fun than just sitting there.

### Guideline #2c: Try to avoid a kingbreaker

The mildest of the kingmaking sins, a kingbreaker is somebody who can steal the win from another player. Gregor and Hiroto are neck and neck at the finish line, with Jamal right behind. Li is half a lap back. Li plays a Tack In Road card on Gregor, even though there's no reasonable chance that it will let Li win the game. It's now going to be either Hiroto or Jamal.

Now, if that card were Tacks All Over Road and everybody had to roll to see who avoided them, that's a different matter. The dice, not Li, are deciding who blows a tire, and hey, maybe everybody would, and Li might, just might, be able to catch up. Much better!

Kingbreaking is perilously close to some good game design elements, so it's very hard to entirely avoid. Generally, good sportsmanship on the part of the players can keep it from spoiling a game.

So, a kingchooser is forced to pick somebody to win the game. A kingmaker can hand the win to another player. A kingbreaker can take the win from another player. It's commonly accepted that "kingmaking is bad," but it's important to understand the variations, and why some are much worse than others.

## GUIDELINE #3: DON'T REWARD THE LEADER

The first car into the pit should not be able to take the "best" position; the highest scoring player for the last hand shouldn't get to choose their cards first for the next. That's "snowballing," and it's bad. If taking an early lead lets a player control more resources, the other players will be ready to quit as soon as somebody pulls into the lead. Chalk up another failure for *Monopoly* on this one; "the rich get richer" might be realistic, but it's not much fun.

Many really good games take this idea a step further, and actually punish the leader. This should be modest, and preferably subtle, but most of my favorite games have a "headwind" mechanism. Take *MarioKart*, for example. Of the "special" power-ups that can be collected, some (the banana peel) are more effective when you're in the lead, and others (the red "homing" turtle shell grenade) work better when you're behind. The banana peel is quite weak, but the red shell is very strong; in general, the farther behind a player is, the more effective the bonus weapons are. A well-designed headwind really helps a player in the back believe that there's still a chance to win.

Another way to describe Guideline #3 is "snowballing bad, headwind good."

## GUIDELINE #4: INCLUDE INHERENT DECELERATION

The closer a player is to the end of the game, the greater the uphill climb

should be. It's easy to confuse this one with Guideline #3. The difference is that a headwind affects the player(s) in the lead, no matter how close to the finish line they are, but inherent deceleration affects everybody, but affects people near the finish line more.

*Settlers of Catan* has some beautifully subtle deceleration. Players are trying to get 10 victory points. The first two are so easy to get, that you have them already on your very first turn. The next couple aren't very hard either. If you're strong in brick and wood, you get them with more roads and settlements. If you're strong in stone and grain, you upgrade to a city, or go for Biggest Army. But whichever way you go, you can't get all the way to 10 points in one direction. There are only five settlements to play, so at some point you'll have to upgrade some of them to cities; on the other hand, you can't upgrade to cities and win without also building more settlements to upgrade. The last couple of victory points have to be earned by doing whatever wasn't easy enough to do for the first 5 or 6. Ergo, a player with 4 victory points is much closer to one with 6 than a player with 7 victory points is to one with 9.

*Phase 10* is a rummy-like card game. Players are trying to create a specific group of cards during a hand, called a set. If a player completes a set, then on the next hand, they move down the list to create the next set. Players who fail must try to create the same set on the next hand. The early sets are easy, so if one player is on Set #2, they aren't very far behind a player trying to complete Set #4. The later sets are much harder, so moving through Sets #8, #9, and #10 are very difficult, and a player that's two sets back in the late stages is farther behind than they might think. As a bonus, *Phase 10*'s steps also provide a headwind. Since a hand ends shortly after any player completes a set, if there are players still trying to complete lower sets, they will tend to cause hands to finish more quickly, before players on higher sets can finish their tasks, which gives the lower players more of a chance to catch up.

Inherent deceleration primarily creates the illusion of a reasonable chance of winning: near the end of a game, players will think they're closer to the leader than they really are. This is exactly what you want in order to encourage them to believe they still have a reasonable chance of winning.

## GUIDELINE #5: A PLAYER'S ABILITY TO INFLUENCE OTHER PLAYERS SHOULD FALL BETWEEN "NONE" AND "LOTS"

No player interaction means you're playing group solitaire, but too much means a player in the lead is just the first to get crushed. A lot of players and designers have trouble putting their finger on this one, especially since some games may not reveal a problem with too much influence until you've played them enough to figure out all the different ways you can mess with other players, and beware the "nice" playtest group that doesn't take full advantage of opportunities to gang up on the leader.

Different players like different amounts of influence. *Lunch Money* has "lots

and lots"; too much for my taste, but some people really like it. *Rack-O*, on the other hand, has none. Each player is playing a solitaire game, with the only interaction being the win condition: whoever completes their game in the fewest moves wins. This is similar to *Race for the Galaxy* (unless you're using the takeover rules), except that *RftG* does have some carefully engineered indirect influence: which game phase you choose to play, and which cards you throw out. I've seen quite a few published games that had little or no interaction, but I haven't ever seen a great game that did.

This is also closely related to Guideline #3, because when players can affect each other, they'll usually try to drag back whoever's in the lead, for obvious reasons. If the game mechanics don't provide an inherent headwind, often the players will.

## GUIDELINE #6: DON'T FORCE A REVERSE

It's perfectly all right to give somebody a choice of reducing their score to buy something, but to force somebody to go backwards on the track, or to lose money, or have points subtracted, is more frustrating than making everybody else's points go up, even if the result is functionally identical. Imagine a game about racing to the South Pole. An event like "Blizzard: players without extra tent stakes slide backwards six spaces" is more frustrating than "Blizzard: players without snow goggles lose their next two turns." It's just how people think.

That's the simple version of that guideline. In practice, applying it has caveats, because sometimes a game *needs* a way to move one player backwards. If you find yourself in this situation (well, it's more a matter of "when" than "if"), there are a number of ways to reduce the pain.

Think about sporting events. Hockey, football, basketball, rugby, downhill skiing, whatever. How often do you see the scoreboard count backwards? Almost never. But nearly all sports have mechanisms for penalizing the players. Football sometimes forces a reverse by moving the team further from their goal, but deducting from their position isn't as direct as deducting from the score. In a horse racing game, lowering somebody's speed would be better than moving them backwards along the track.

Speaking of tracks, there's a whole class of games that is entirely about moving along a track: *Candy Land*, *Parcheesi*, *Sorry!*, and *Aggravation*, to name a few. There is no other resource besides track position. Particularly when each player has multiple pawns on the track, moving everybody else forward is just too complicated. I think the fact that one of the games is named *Aggravation* pretty much spells out why this class of games tends to be ignored by more sophisticated players.

Another excellent way to include reversals without all the pain is through money, for two reasons. First of all, players already have expectations about money; sometimes you have to pay a fine, or a toll, or an emergency repair.

Money comes pre-loaded with expectations of having to spend it, sometimes involuntarily. Another benefit comes from the usual way money is handled. In most games, you have a pile of money (bills or doubloons or credits), and it's not really easy to see how much money each player has relative to the others. If you're not sure who's got how much, being forced backwards (having to lose some money) isn't as painful. Finally, if players are dealing with a fairly wide range of denominations, losing a few bills or coins from a large pile doesn't seem like a major setback, even if it's a few big bills. Deep down, there's still part of the brain that would rather have seven nickels instead of two quarters, because seven is more monies than two.

So try not to force reverses, but if you need to, hide the reverse by applying it to a secondary resource, by applying it to a resource that's hard to compare against other players', by using a resource that's measured with a wide range of denominations, and/or by using a resource that players expect will be decremented on occasion.

Now, just because some particular game manages to steer around every single design flaw listed above doesn't mean anybody's going to enjoy playing it. You do need a game that is fun to start with, after all. It's just a shame when a game hands out big mugs full of fun, and then steals the fun back from a player after they've spent a couple hours playing the game. It's even more of a shame if a player feels that their fun has been stolen at the beginning of a game, but games like that tend to get thrown out pretty quickly. Still, don't make the mistake of thinking these guidelines are mostly applicable to the end of a game. Lots of major arbitrary events, game "cul-de-sacs" where players can get trapped, or even poorly written rules can put a player in a position of feeling like they no longer have any clear choices that might lead to victory.

There is a corollary to this principle, by the way, which is "A game is not fun unless a player believes they have some reasonable chance to lose until the moment the game ends." Playing a game where you take it for granted you are going to win is barely any better than playing one where you know you're going to lose (unless you're playing for money). Either way, the uncertainty of who will take the crown once the scores are added up is the heart of the principle. Keep that mystery alive for the players. Don't steal the fun.

> **Dave Howell** *was a co-author of Wizards of the Coast's first published product, and later was a playtester, editor, and production manager for Magic: The Gathering. He's also credited as a playtester for at least 75% of all Cheapass Games, which is only somewhat related to the fact that he's the guy who gave James Ernest his first job in the game industry. This essay is excerpted from "Golden Guidelines of Game Design," a game design lecture he has presented at various conventions, featuring more than twenty guidelines for making better games.*