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**PROFESSOR:** So let's talk about the reading, which was about randomness and player choice. Everyone has an opinion about randomness and luck, right? It started off the reading about that kind of thing.

So just to start things off, what are your opinions about games with luck? Do you like them? Do you not like them? And what do you like about games that have a luck element?

**AUDIENCE:** I personally love a mix of skill and luck. So my favorite example would be poker. So you could pick up the game really quick, and you could be a novice, and you could win if you get lucky, and it makes you feel good. But in the long run, over a hundred thousand hands or more, it's the person with more skill that will end up winning in the end. So I like that dynamic of being easily accessible, but also having the skill element.

**PROFESSOR:** OK, so that accessibility curve, that little bit of difficulty curve going in there as well. Yeah?

**AUDIENCE:** I would say that a lack of predictability is good, and luck isn't, but but luck is necessary to achieve unpredictability sometimes.

**PROFESSOR:** OK, how do you mean?

**AUDIENCE:** So basically, you need luck that the game won't go the same way every time, not because you actually-- the randomness-- on portions, it has to be random, but that's the only way to make sure that different games take different paths.

**PROFESSOR:** OK. Yeah?

**AUDIENCE:** I like the unknowability aspect of it. I agree with [? John ?] that I like a balance between luck and skill. And what I was thinking of was something like Catan, where you have this whole plan that you're trying to work out-- OK, I'm building my city, and all I need is an ore, and I just need a [INAUDIBLE], and then I can build my city and do all this stuff. But you just have to wait for it and plan around, OK, what if I don't get what I need? Things like that.

**PROFESSOR:** Yeah. Yeah.

**AUDIENCE:** I also think this is incredibly subjective.

**PROFESSOR:** Absolutely.

**AUDIENCE:** So [? John ?] mentioned that he really likes poker. He likes [INAUDIBLE]. Personally, I like games with a lot less luck than poker, but that still have a little bit.

But then again, I know tons of people who are like, oh, my favorite game is pokeno. Sorry, which is all luck, essentially. And you feel like you're doing stuff, you do have decisions about which piece to move. But in the end, it's essentially 90% luck.

**AUDIENCE:** Could I comment?

**PROFESSOR:** Please.

**AUDIENCE:** Can I go on what you're saying, Ben?

**AUDIENCE:** Yeah.

**AUDIENCE:** Even if you take a classic, 100% skill-based game like chess, for instance, in a professional tournament setting, there's still luck. There's a luck element to who you're playing, or whether you get white and black, or whether they're having a good day or a bad day. I think there's always luck in games, even if it's 100% skill-based.

**PROFESSOR:** Does anybody know how white's determined when you start a chess tournament?

**AUDIENCE:** Usually based on your rating. And they also, in a fair tournament, will play a match where each player plays three games of white and three games of black.

**PROFESSOR:** Yeah. So they're trying to work as much of that luck out of the system. But you're right-- there is some, a little bit. And there's reasons for doing that.

**AUDIENCE:** I would say chess is-- I mean, chess [INAUDIBLE] is sort of more predictable than other games [INAUDIBLE].

**AUDIENCE:** [INAUDIBLE] always going to be [INAUDIBLE].

**AUDIENCE:** Yeah, chess is more predictable. I mean, I don't think what I'm [INAUDIBLE]

**AUDIENCE:** So it's like, for example, think of round robin tournament play, where the person you go up against depends on, to a large extent, how you've done in a tournament. But that person who you go up against is basically chosen from a pool of people who have scored pretty well. So

there could be a grandmaster in that pool that gets selected, or there could be a weaker expert player.

**AUDIENCE:** A lot it depends on what you consider part of the game, also.

**PROFESSOR:** Yeah, exactly right.

**AUDIENCE:** You could say the selection process. You could also say, oh, I got lucky that my opponent didn't sleep last night. Is that really part of the game, or is it just that your opponent was a weaker player on that day?

**PROFESSOR:** You have some more, [? John? ?]

**AUDIENCE:** [INAUDIBLE] what I wanted to say is, was that, back to the question, with [INAUDIBLE] in terms of games, I prefer games which have skill at certain game elements, but it's not so much that they don't have luck as you don't have to deal with the luck instantaneously. Like, for example, the board setup at the beginning Catan. Or when you have, say, a deck where the top three cards are the cards you're choosing out of, or something, where it's randomized. And so every time, it's going to be different, which is the good part. And yeah, it might favor one person over another, because of luck, which is that part. But on the other hand, you still have time to deal with it with your own strategy.

**PROFESSOR:** I'd say that probably colors into that chess, too. The setup of the board is a lot like the framing of a tournament, or the context the tournament is played in, the context of the players.

**AUDIENCE:** So I would say that whether or not a game based on luck on chance-- it's also dependent on what my purpose for playing that game is.

**PROFESSOR:** Absolutely.

**AUDIENCE:** So I really like sometimes playing chance-based games, and I've gone home for break, and I'm going to see my brother. And I haven't talked to him, and I haven't been with him in months, so we can play games. It's not really about the game. The game is just to do something while we talk about what we've been up to.

Whereas once I'm home for a really long time, we'll play a skill-based game. And it's really all about the two of us competing at the game [INAUDIBLE]. So it's also not necessarily subjective by person, but by situation.

**PROFESSOR:** Yeah, absolutely. Yeah?

**AUDIENCE:** So in the game Dominion, there are basic [INAUDIBLE] cards all the time. And then there's a bunch of special sets of 10 cards, which [INAUDIBLE] game. The strategy [INAUDIBLE] the special 10 cards, and just buy-- and to do the optimal strategy on the stuff that's in every game, often you can win 30% to 40% of the time against the best possible strategy with [INAUDIBLE], even if you're using another set of cards, which is why-- which shows that--

But they're [INAUDIBLE], but at the same time, the game has a lot of strategy involved, despite the fact that it comes down to luck. And so when people are like, oh, this strategy is better than this strategy, because when we simulate 1,000 games, it wins 60%, 70% of the time. As opposed to actually playing the game and showing one game won.

**PROFESSOR:** Yeah. Well, that's a huge thing, too, of how many times are you going to play this game, especially the games that you're making in your assignments? How often are these games played? Hopefully, you're testing as best you can, as much as you can. But I don't think you're going to get 1,000 plays out of them, right?

Unless you're going to throw it through a computer. You don't have to. Please don't. Getting real people to play it is a huge component of it.

Because there's something about luck-- I don't think we've talked about yet-- the ritual aspects and the performative aspects of luck and chance. Can anybody think of a game where there's something very particular to how luck feels there? Maybe you can take luck out of the system, but why you wouldn't want to?

So I actually think about, in that kind of context-- but where you're talking about craps, you're talking about gambling games, the rituals that go around gambling games-- blowing on dice, rolling dice. What's craps if you remove the dice and replace it with some other kind of-- technically, getting to the exact same probability system, but different materials? Is that going to be a different game or not?

**AUDIENCE:** Could you replace it with a spinner [INAUDIBLE]?

**PROFESSOR:** Yeah. Is the probability curve the same?

**AUDIENCE:** No.

**PROFESSOR:** No, but you probably could.

**AUDIENCE:** Yeah, you could probably break it down into [INAUDIBLE] the same.

**PROFESSOR:** Yeah.

**AUDIENCE:** I'm thinking from a pro aspect, where not exactly like craps, where you're playing against the house, the house is always going to have the edge. But the poker aspect, where you're playing against one other. And yeah, [INAUDIBLE] if you're that much better than everyone else, then you can play professionally [INAUDIBLE].

In which case, you wouldn't want to take the luck element out of it, because your customers-- that is, the people you're playing against-- aren't going to want to play against you if they realize that they're so bad. But if they win every once in a while, and they feel like they're winning often, but not a lot-- yeah, [INAUDIBLE] You wouldn't want that [INAUDIBLE].

**PROFESSOR:** Yeah.

**AUDIENCE:** [INAUDIBLE] typically a large percentage of people that actually play poker now make money, even when include-- I believe it's somewhere between 1/5 and 1/2 of people will make money playing poker even without [INAUDIBLE].

**AUDIENCE:** I think it's a lot lower than that. It depends on how good the table is.

**PROFESSOR:** Are both these cases you're talking about in casino play?

**AUDIENCE:** I'm talking about [INAUDIBLE] poker table at [INAUDIBLE]. And that's including [INAUDIBLE].

**AUDIENCE:** Well, I'm not sure if you mean in that session, or over the long term. But I think [INAUDIBLE].

**AUDIENCE:** Even on [INAUDIBLE]?

**AUDIENCE:** I think in long-term, probably 10% [INAUDIBLE].

**AUDIENCE:** 98% of poker players are long-term losers, [INAUDIBLE].

[LAUGHING]

**PROFESSOR:** What website?

**AUDIENCE:** I don't know. TexasHoldEm-Poker.com.

**PROFESSOR:** Sounds incredibly authentic.

**AUDIENCE:** No, yeah.

[LAUGHING]

**PROFESSOR:** Go ahead.

**AUDIENCE:** So to your question about craps, my first, I guess, response-- my thought was that if you change the dice to a spinner, even if it has the same exact distribution, it seems like a different game. So I started thinking about it, and if you have a game like online craps, that's kind of what you did, except you just show them a picture of dice. And that feels like it's the same. So I guess I'm not sure.

**PROFESSOR:** Yeah.

**AUDIENCE:** Maybe new rituals would come up with the spinner. Like maybe if you're blowing on dice, you rub your hands or something. [INAUDIBLE].

**AUDIENCE:** And the question of mechanic versus aesthetic. It's the exact same mechanic, right? You have the random number generator that somehow gets you money or loses you money, with very specific rules on how it works. Whether it's the die, or the spinner, or a computer, that's what the user's experiencing.

But at the end of the day, it's just like Monopoly-- at the end of the day, you have a random number generator that's moving you around the board, and you collect stuff. How they skin Monopoly doesn't really matter-- it's still Monopoly.

**PROFESSOR:** Exactly. And they showed it.

**AUDIENCE:** I guess going off of the feel, and the fact that with dice, some people believe it takes some type of skill. They feel like they can roll 6's more often if they, I don't know--

**PROFESSOR:** There's a lot more tactility to dice. Like maybe if I'm just cupping it the right way, maybe if I put the die facing the right side up on the palm of my hand when I roll it, maybe there's going to be something there. Maybe I've got the skill there.

Maybe it's just for the back of the house. Maybe it's for the casino sites-- who knows. But yeah, you're tricked into feeling like there's some choice that you're able to make to change

the outcome.

**AUDIENCE:**

So to build off of [? Damon's ?] point, that helps clarify my idea on it. Because I think part of craps, then, is the aesthetic experience. And to me, it feels like the dice, or at least the idea of dice, is fundamental to craps. If you don't have it, then it ends up being a different game, because it's a different aesthetic.

**PROFESSOR:**

So going back towards the beginning of the reading, one aspect of this aspect the reading is framing itself in is target audience. Who is the target audience for the game you're making? And it starts off with Candyland.

Candyland, the most random, the least predictable, the least amount of player choice that there is in a game. But because of the audience that it's being designed for, that's OK. That's actually beneficial in the examples they gave.

So have you thought about the target audience for your own games right now? Do you have a clue about what that might be? Or the context that you were saying, the framing you might think-- I know with your game, at least, there's some kind of party atmosphere going on in it because of the physicality involved, right? Any others?

OK, because one thing to think about, especially when you're coming to this from a designer [INAUDIBLE] and know the assumptions you have, and the personal likes and dislikes that you have. And you're going to be on a team, you're on a team of multiple people. You're all going to have different likes and dislikes.

One thing to try to really figure out early on is who is the person playing the game, and what is their dislikes, and what are their likes? At this point, just assume. Just come up with a random target audience person, and just make that assumption about what they may or may not like.

Because I know you're going to have discussions, arguments over which one is best or not. How much randomness are we going to include in this game or not? Are we going to include this mechanic over this mechanic or not?

Rather than making it about what you personally like, maybe try taking it to what another person is going to like. How it's actually going to played. And you might not find that out until you're actually in the middle of play testing and you're getting it in front of other people.

[SNEEZES]

**AUDIENCE:** Bless you.

**PROFESSOR:** Cool. So I want to talk about randomness some more later on. But first, let's spend about-- I think some of these games can be played in about an hour and a half, an hour? So we'll play some of these games until about 2:30 and talk a little bit after them.

What we want to talk about as you're playing the game-- pay attention to how randomness is used in the game and how player choice is used in the game. They're all going to be pretty similar to each other, but with a different mix and a different balance. But similar types of mechanics are in each of these games, if I remember this correctly.

So [? John, ?] you want to describe the games that you learned?

**AUDIENCE:** So I checked out Race for the Galaxy. How many people have played this game?

**PROFESSOR:** How many have played San Juan? OK.

**AUDIENCE:** So I listened to the rules online a few times, but I didn't actually get a chance to play this game. But it's a game where you're trying to get victory points. And the main mechanic-- actually, there's really cool artwork, so I'd like to pass it around.

**PROFESSOR:** [INAUDIBLE] think of the pieces in the game [INAUDIBLE].

**AUDIENCE:** [INAUDIBLE]

**AUDIENCE:** But I think the unique part about this game is that there are phases, and each player selects what phase their setup phase is. And they each do different things. One phase lets you gain cards, another phase lets you bet cards. You can consume items, which gets you victory points. You can score planets, et cetera.

And each person selects the phase that they want to play, and I think they get bonus for doing so. Everyone simultaneously plays the phase that they want, and everyone can take part in that phase. So seems like a really neat game. Maybe [INAUDIBLE] more granular aspects, and you can play around.

Agricola-- I had the opportunity to play a few times, actually. And it's really fun. So check out the [INAUDIBLE] here. There's a lot going on, actually. There's a little-- what would you call this-- player board?



**PROFESSOR:** Yeah, a player board.

**AUDIENCE:** Player board. Everyone gets one of these. And then there's a common area as well. Multiple things, actually.

**PROFESSOR:** Are you going to [INAUDIBLE]?

**AUDIENCE:** Yeah. So there are these major improvements, which you can invest in, get victory points, and get power-ups eventually. There are different rounds to the game, and it's a worker placement game. So you start with a couple of workers, you're a family, and you're farming stuff, roughly. And you want to expand your farm. You can either build up your house, you could get livestock, or you can plow your fields.

And there's different rounds, a finite amount of rounds. And resources respawn into this board every round, so it's actually quite cumbersome to re-up the resources every time. And the whole point about this game that I thought was really unique-- oh, you also get a limited amount of profession cards, and also minor improvements.

And those are different every game. There's a pretty big stack of these profession and minor improvement cards, but you only get seven. So that's the hand that you have to deal with, and you don't ever get any more.

Yeah, so there's different rounds. And you only have a couple of workers. And the only way you can expand your family over time-- you have to pick and choose what your strategy is going to be. You don't have time to do everything, because the rounds come really quick. There's also a harvest phase, which is essentially-- so during the other rounds, you're amassing resources. And a harvest phase, where you cull the resources out from your farm.

And you definitely don't have time to do everything. But at the same time, the scoring, the points at the end, rewards you for that respawning. Another thing that I noticed with that-- the cards that you get dealt, some of them have early game benefits.

For instance, if you play this game, wood is super awesome at the beginning of the game, so get the wood thing every time. But as you go on in the game, wood [INAUDIBLE]. So it was a fun dynamic that I was able to experience.

**PROFESSOR:** Did it come with beginner's rules, or first-time rules?

**AUDIENCE:** I think it's recommended for younger players.

**PROFESSOR:** Yeah, I'd recommend playing those. You'll get the same feel, and you'll probably get a full play--

**AUDIENCE:** [INAUDIBLE].

**PROFESSOR:** You'll still get a full play experience, and you can play multiple games a day.

**AUDIENCE:** There's lots of bits. If I had one criticism, there are so many bits, and it's really tedious to re-spawn all the resources.

**PROFESSOR:** And the colors aren't all that different from each other, either.

**AUDIENCE:** I saw some online where actually, the pigs are-- they just had little pink piggies, and that box would have been cool. There's also a bunch of different decks, so I think there's tons of replayability.

And I actually kind of want to buy this game, because at first, there's tons of cards. Really, the whole deck, it's basically all over. And reading every line is kind of overwhelming. But after playing it a few times, I really got the hang of it, and it was a fun experience.

**AUDIENCE:** Every time I play this game, I also play [INAUDIBLE] with my friends. And every time, someone pulls out some interesting combination combo that we haven't seen before, and it's like, oh, well.

**AUDIENCE:** So let me ask how you do drafting, because online, I heard there's rituals around the drafting process. Did you have house rules?

**AUDIENCE:** Usually, you do observation first and then [INAUDIBLE]. You deal everyone seven, they take one, pass the rest to the left.

**AUDIENCE:** OK, and it's a public sort of process?

**AUDIENCE:** No, you only see the card that you have, until you can pass.

**AUDIENCE:** Oh, so you get passed the same, you pick one, and then--

**AUDIENCE:** You start with seven. Everyone has seven in hand. Everyone picks one from their hand and passes the remaining six [INAUDIBLE]. And that person looks at that six. [INAUDIBLE] know all

seven cards or not.

**AUDIENCE:** Maybe that was just something that came up through the community in the ritual of playing this game. Or maybe it's written in the rules, but I--

**PROFESSOR:** Both are played professionally and for money.

**AUDIENCE:** Oh, OK.

**PROFESSOR:** And that's where a lot of the decks came out of. You'll see people-- just like Magic the Gathering-- the new decks come out, you'll get new tournaments going on. Really popular in Europe and Germany.

**AUDIENCE:** So the drafting process-- is that something that spawned--?

**PROFESSOR:** It probably came from a pro play.

**AUDIENCE:** Because we just distribute the cards.

**PROFESSOR:** Which I think is one of the things you can do to sometimes balance skill. Doesn't always work. You're still going to have people who are really skilled at drafting and really skilled at reading the table, based on the cards and having a good memory of what cards came before them.

**AUDIENCE:** OK, I can see that. So it's a fun game. Definitely check it out if you haven't.

**PROFESSOR:** Cool. Got another more simplified worker placement game called [INAUDIBLE] by-- I don't know the name. And what this has is a lot of the randomness in this one coming from not knowing what's coming up in the tiles.

So you're kind of uncovering this forest area, discovering new things, placing your workers in these tiles to basically get victory points. The victory points are traps around the board. So you'll see, actually, this conceit used a lot in these kind of games, where the victory points are like a race, the [INAUDIBLE] at the right does this on a number of things [INAUDIBLE].

Very basic shapes for the pieces. Simple color, natural wood colors. And I think you can tell the difference-- I'm not sure if they do a colorblind test on this, but I assume that colorblind folks can see the different [INAUDIBLE].

Puerto Rico is kind of the board game version of, a simpler version of Race for the Galaxy. A resource-generation game. Again, played around rounds.

Each person has their own plantation that you're basically building up. And the big thing with this series of games, and Race for the Galaxy does this as well, I believe-- so if you're the person who chooses what happens in a round or a phase-- I forget exactly what it's called-- then the person who chose it gets a privilege that they can do something a little bit extra. So part of the play is choosing the role based on both whether it's going to be good for you, or whether it's going to hurt the other people around you. Basically denying privilege and making something in the game happen before somebody else might have wanted it to happen.

Dominion, classic Magic-based card drafting game. Lots of different types of cards of multiple number. And again, you're playing for victory points.

If you have played Dominion before, I recommend playing one of the other games. If you haven't played Dominion before, it's really easy and really fast. So it's 30 minutes. Your first playthrough will probably be about 45.

I have not played this one. And I'm going to find out what it's about when I open the box. It's in multiple languages. Again, board with racing numbers around it, much smaller board this time. And what are we to be doing?

You're archaeologists. You're trying to acquire knowledge for an excavation exhibition. You're planning excavations and exhibitions and getting victory points from digging in [INAUDIBLE] and finding valuable artifacts. So yeah, unfortunately, I can't exactly tell you exactly what this is about. But it's likely resource gathering and a little bit of worker placement.

So those are the 1, 2, 3, 4, 5, 6 games. Grab a game, set up a group. I'll call time at about 2:30 and see where we're at.

So don't put your game away yet. If you guys could come back over to Race for the Galaxy-- what I'd like each group, each game being played, tell us a little bit about-- well first, tell us what the game was. And tell us about-- this is assuming you were able to get this far-- how randomness and player choice entered into the game.

How was it used in the game, how did it play through? Don't just focus on the statistics of probability, but also talk about performance, and feel, and the tactileness of the pieces in what you're doing. So you guys go first.

**AUDIENCE:**

All right, we had Puerto Rico. The randomness had to do with, I guess, right here in the tiles

that the plantation tiles that flip up. The player's choice comes in with the role that you can use for that round, and also, I guess, whatever strategy you choose, be it building up enough money to buy stuff, or trying to get enough colonists so that every single one of your tiles is occupied.

**AUDIENCE:** So you had a lot of choices. Basically, at the beginning of the round, you pick a role, and each role has a special privilege that you get. And then everybody, including you, perform an action based on that role.

And so on your turn, you pick a role, keeping in mind there's a lot of public information. So you can see what's good for you and also perhaps not as good for everyone else. And then each one of these roles, the actions-- everybody gets a choice on how they perform it.

So for example, he was saying, these little tiles that flip up-- one of the roles lets you basically take one and put it on your board. So there's choice there between how you compose your board. And those lead into getting different resources and victory points and other such things.

**PROFESSOR:** How did it feel?

**AUDIENCE:** It was really annoying to set up. Tactileness-- nothing special, I guess. It's a lot of tiles, little bits you use.

These are goods-- I think this one is tobacco, maybe? Corn. Those kinds of things, you sell, you get gold or victory points for. Here is a gold.

**PROFESSOR:** You mentioned earlier about the affordances of the pieces to the play mat?

**AUDIENCE:** Yeah. Is there [INAUDIBLE] play map?

**AUDIENCE:** Oh, here.

**AUDIENCE:** Yeah. So this is what the play board looks like. So you can notice, basically, there are two main types of grid.

One's little rectangles, 2 x 1. And one's a 1 x 1 square. And so we have a couple of different-- so here is one thing [INAUDIBLE] clearly 2 x 1 and fit in that 2 by 1 square, and same with this one. And there are also little 1 x 1 squares.

And so one of the interesting things is that with this board, you can tell there's clearly a limited

number of things you can put on this grid, right? I don't think there's a mechanic for removing something once you've placed it. So it'll fill up eventually.

So you have to keep [INAUDIBLE]. While you do want to build things quickly and try to get more resources at the beginning of the game, you also don't want to just fill your board with crap and then be stuck at the end of the game. So it's kind of similar to Dominion, in that sense.

**AUDIENCE:** And while they do building [INAUDIBLE] really well, because [INAUDIBLE], maybe they could have done the other bits, where they're roughly the same size and shape. And it was a little confusing [INAUDIBLE] square at the very beginning.

**PROFESSOR:** How did the rules support those piece sizes? You've already got some affordances going on with the pieces. Do the rules piggyback off that? Do they take advantage of it?

**AUDIENCE:** Not really.

**AUDIENCE:** There were some diagrams that were pretty.

**AUDIENCE:** Some of them, but they also didn't explain very well. They didn't diagram the player board at all, so basically, there's nothing here. This is just buildings and plants, and these are plantations. I think you just kind of figured it out, like I guess we did.

**AUDIENCE:** [INAUDIBLE] down, though.

**AUDIENCE:** Yeah, it did.

**AUDIENCE:** [INAUDIBLE]

**AUDIENCE:** We're only on our second round right now, like our second full, going around. Because the setup-- first of all, just sorting all this stuff out, it's kind of like Dominion, where it's a pain in the butt to sort out all the tiles, and the cards, and whatever. But also just trying to figure out what we're doing, and what's going on for the first round was really slow.

**AUDIENCE:** I mean, I guess there's a little picture of buildings, and a little picture of palm trees, so--

**PROFESSOR:** It gives a lot of space on the map to describing these things that are already described on the card elsewhere.

**AUDIENCE:** Kind of. So these roles--

**AUDIENCE:** [INAUDIBLE]

**PROFESSOR:** That's true.

**AUDIENCE:** This is a very skimmed down what's going on, basically.

[INTERPOSING VOICES]

**AUDIENCE:** --actually a little more information, and the rulebook is the full information.

**AUDIENCE:** [INAUDIBLE]

**AUDIENCE:** Yeah, but I don't know how much I agree with putting the one-line summary on these little role cards. Because you could look at this, it says "trader"-- what does trader do here?

**AUDIENCE:** [INAUDIBLE] information.

**AUDIENCE:** Yeah, basically. I can understand putting it on the board instead of the rulebook, because no one wants to have to look through the rulebook every time. But on here, it's an immediate I can see the roles, OK, I can look at the board.

**AUDIENCE:** Do you think redundancies are bad in general?

**PROFESSOR:** No, redundancies are great. Redundancies are awesome. We use them as best we can. But you have only so much space, in the pieces and boards that you make you've got to really decide what's the most important thing for the person to know.

And the most important thing-- probably need to tell them more than once. Through rules, through the play mats and pieces, through the just natural, this fits here and this doesn't fit there kind of thing. But yeah, definitely.

And then text-- some people hate it, some people like it. I'm in-between, use it as it's needed. Great. Race for the Galaxy is kind of similar to this, isn't it?

**AUDIENCE:** Basically.

**PROFESSOR:** There you go. So tell us about Race for the Galaxy. Randomness, player choice, and then affordances for the pieces.

**AUDIENCE:** [INAUDIBLE]

**AUDIENCE:** Yeah.

**AUDIENCE:** Yeah.

[LAUGHING]

**AUDIENCE:** [INAUDIBLE]

**AUDIENCE:** Huh?

**AUDIENCE:** Yeah.

**AUDIENCE:** [INAUDIBLE] game [INAUDIBLE] Yeah, [INAUDIBLE] are really just based on what cards you got dealt.

**PROFESSOR:** Can you show us how-- somebody do an example layout while another person's talking?

**AUDIENCE:** You had a starting world, which was like a starting hand, which contributes a lot of your initial luck. And then the card that you drew earlier particularly for-- you could say [INAUDIBLE], if you don't get any useful cards, then you're sort of stuck, and you just have to [INAUDIBLE]. Whereas if you get good cards, then you can sort of-- they'll allow you to [INAUDIBLE]

So a wrench in the game is that the game is designed to-- it's like there is sort of a way to have an engine by every turn by producing points every turn. But by the time you actually get the engine up and running, the game ends in one or two turns, anyway. I don't know.

**PROFESSOR:** Does that feel like what you guys were doing in this one? Struggling to build something that would produce stuff in the end?

**AUDIENCE:** Yeah, yeah.

**PROFESSOR:** And on the other games, too?

**AUDIENCE:** It's producing immediately, actually. After the first full round, I think every one of us got something to sell to get stuff back, basically.

**AUDIENCE:** It's interesting to me that those are the same games, sort of. But this has so many bits, and bobs, and gadgets [INAUDIBLE]. And [INAUDIBLE]



**PROFESSOR:** From a deck of cards. What is this doing that that one is doing, too?

**AUDIENCE:** The role selection. You choose what you're going to do, but everyone gets to follow suit with that. Then you get a bonus [INAUDIBLE].

**AUDIENCE:** The little bit there-- they exist here, but they're in the form of cards face down [INAUDIBLE]. And so it's not apparent that you have [INAUDIBLE].

**AUDIENCE:** Did you have to sort out those goods beforehand? Or is it just--

**AUDIENCE:** Nope. You literally-- it's like if you suddenly get a mining good on a mining planet, you take the top card in the deck, put it face down under there.

**PROFESSOR:** So you're taking cards out of play when you're doing that. By generating a resource, you're reducing the amount of choices. Granted, there's a ton of choices up there.

The deck is really large. So it's not making a huge effort. Is there a card that you can kind of bury cards underneath and just completely remove from play for this one?

**AUDIENCE:** I mean, [INAUDIBLE] could be put [INAUDIBLE] until you discard it and then [INAUDIBLE].

**PROFESSOR:** So in San Juan, there's a chapel where every time you put a card underneath it, it creates a victory point, and that card can never be used for the rest of that play session. So a good strategy in that game is to take things like another high points-giving card that maybe you can't to build, and somebody else could, and burying it-- removing it from play.

**AUDIENCE:** Yeah, this game, you just hold it in your hand, never play it.

**PROFESSOR:** Yeah. Can you talk about the player mats? The kind of player aids it gives you?

**AUDIENCE:** A very expansive cheat sheet.

**AUDIENCE:** Yeah, the game uses a lot of iconography on the card. One team used a lot of the iconography there.

**PROFESSOR:** To somebody who hasn't played before-- was the iconography helpful or hurtful?

**AUDIENCE:** It was certainly very helpful. I think just thinking along the lines of [INAUDIBLE], there are very few in this game. So even though the iconography has a hand next to a card with a "2" on it, I still had to work to make sure what that means.

**AUDIENCE:** On the other hand, one thing that they did was hexagons are victory points. They have the hexagon victory points that are actually little tiles that you can see. But then on the cards, you can see that on every card, there's the victory point value, and that's in a hexagon. And whenever there's a card that says gain victory points, you see it has a hexagon.

**PROFESSOR:** Yeah. It could have very well just be shitty fireworks just flowing out, like this is the card to use. It's calling it out, really clearly out. That's great.

**AUDIENCE:** Or the shapes-- I don't know, the icons make use of the card shape. They have a little rectangle--

**PROFESSOR:** There's also diamonds, and rectangles, and circles, yeah?

**AUDIENCE:** Yeah. Diamonds and circles are for the two types of cards.

**PROFESSOR:** Are they in different places than [INAUDIBLE]?

**AUDIENCE:** Yeah, each card has a hexagon thing that [INAUDIBLE] as well as the [INAUDIBLE].

**PROFESSOR:** So yeah, thinking about placement of where you're putting your numbers, and where you're putting things on the card, where your eye goes when you look at the card. I mean, those are really complex-looking cards there.

**AUDIENCE:** They even have a little-- in the upper right, they have sort of reminder symbols on the cards there. Because there's [INAUDIBLE] just to remind you, oh, this card is-- you might forget about this power, you should remember it.

**PROFESSOR:** Yeah. That game-- I think all of these are made by the same company. Yeah. Rio Grande? Oh, no, [INAUDIBLE]. So you're going to see different kinds of-- what do you call it-- style guides that they're using. The rules for these three games are very similar.

I think Race has a little bit more advanced layout, but there's the basic kind of layout, where the rules on one side, some columns and sidebars on the other side, the occasional diagram. But that designer believed in, everything goes on the cards in some form. Everything's there. You can play the game without the rules, unless you have a really good memory.

**AUDIENCE:** I mean, the thing is, you need to use expansions. And you can introduce expansions, and you don't need to read the rules in the expansions. And they'll introduce a whole bunch of iconography, and you'll look at it, I'm like, oh, I bet this is a [INAUDIBLE]. And I'll bet that this is

what card means, and it's usually right.

**PROFESSOR:** Yep. Cool, so we're still doing good on time. [INAUDIBLE]. Randomness, player choice, and then affordances.

**AUDIENCE:** Well, the randomness came when we first dealt out the application cards and the minor flipping cards. There's the [INAUDIBLE]. [INAUDIBLE] we deal out seven to each player, for each. So that's sort of where the randomness comes in.

**AUDIENCE:** And it gets amplified, because these occupations and improvements seem like, you could just go creating things with them. He got something that let him [INAUDIBLE] throughout the board that he would continue to play. And then he had another thing that he could use that allowed him to double that amount. So it really feels set up for-- yeah, it seems like you can just make these crazy combinations that basically give you farming superpowers.

**AUDIENCE:** I forgot about that part [INAUDIBLE].

**PROFESSOR:** What was it like choosing? How did you decide what to choose, when to choose? Did you get far enough?

**AUDIENCE:** Yeah. In the beginning, I had no idea what I was doing and why I won. But as we got through, I started to get a sense of it. And now, I'm finding it easier to think about, OK, I'm going to need wood to build a room. I'm going to need food, because the harvest is coming up.

But at the same time, I feel like I don't have a good enough sense of what's the deck. Because he was just pulling out things that I had no idea it could even happen. And then like, oh, wow. OK, that changes a lot.

**PROFESSOR:** So what's the choice for him is random situation for you. You just have no clue that might even pop up, because you don't have that information, right?

**AUDIENCE:** Yeah. So I think it would take a while to get a good sense and fully understand what's happening. But I could already plan what I'm trying to do on my end.

**PROFESSOR:** Can you talk a little bit about the affordances of it? Tactile feel, how did it feel when you were playing the game?

**AUDIENCE:** I like the board setup [INAUDIBLE] know that either [INAUDIBLE]. And the [INAUDIBLE], the

[INAUDIBLE] shapes, [INAUDIBLE].

In terms of the resources, it felt weird, because they were all either little circles or cubes. And you just have to remember what the colors mean. But then again, they're also [INAUDIBLE]. The little pictures on the common area that tells you what they are whenever you [INAUDIBLE].

**AUDIENCE:** Yeah, and there's this interesting thing where every round, if a resource hasn't been taken, then it increases. And now let's say there's three woods sitting here. The next round, there'll be six, the round after, nine. And so on, and it keeps building.

And so to make it easy to remember that, what they have you do is they have you put it on these little squares to start out with, so you can know what you just added. And then there's an arrow pointing into this little bucket, so you know, OK, place it here to set up the round, put it into the bucket so that everything's there. And I feel like it'd be pretty easy to lose track, like, oh, have we added wood here yet? We kept forgetting to add sheep [INAUDIBLE].

**PROFESSOR:** So you're farming. There's animals, and there's other things-- vegetation, stone, raw materials. It breaks them up, right? The squares are things that are animated-- they're living?

**AUDIENCE:** Mm-hm.

**PROFESSOR:** Circles are things that don't animate. Is there some kind of affordance going on there? Does that seem useful to you, why those are being distinguished that way?

**AUDIENCE:** Yeah, because animals and resources behave very differently. Because these resources, you're usually expending to either get improvement, or build houses, things like that. Whereas animals, you have to manage a little bit more in terms of OK, I could kill this animal and eat it, or it'll give me points later. Or I can breed them, and I'll have to keep track of spacing them here. So there's a nice separation of what you're really doing with them.

**PROFESSOR:** Cool.

**AUDIENCE:** [INAUDIBLE]

**PROFESSOR:** No, he's not in today. He'll be in tomorrow.

**AUDIENCE:** OK, thank you.

**PROFESSOR:** Yep. Great. Anything else you have to say about this one?

**AUDIENCE:** It's really fun. I'll probably go buy it, because I want to play it again.

**PROFESSOR:** Why is it fun?

**AUDIENCE:** Probably the choices. There's just so much going on, and it feels like I could really make my own strategy. And I don't know-- I just had all these crazy plans of, OK, if he [INAUDIBLE] a room, that means that I can, which means I can build my family next turn, which means that I'll have more actions. And now I can do even more stuff, and get more resources.

**PROFESSOR:** So there's this complicated system going on-- if I can try to remember it, understand it-- a complex system going on that you're going in the right direction, do you feel like you can kind of switch?

**AUDIENCE:** Yeah.

**PROFESSOR:** For people who played it multiple times, did you feel the same way?

**AUDIENCE:** Yeah, because if you and your opponent aren't choosing a choice, it gets juicier and juicier every round. And so it's this game of chicken-- like, are you going to go for the wood?

**AUDIENCE:** Yeah, there was one round where I kept nine or 10 wood.

**AUDIENCE:** I don't know. That was fun for me. I like that.

**AUDIENCE:** Just thinking back on what he said, I actually like this game a lot, too, having a lot to do with all the different choices. And there's a really complicated system that it took a while to kind of understand. And I don't understand it completely yet, but I'm getting a much better feel for it, you know.

And I think that's really appealing, not having something so absurdly complex that nobody can actually do it. But not having something really simple, either. Just the sheer number of choices here makes it really interesting to me. Because I guess one of the things about having not that many choices is it almost feels like I could just make a computer play it, because there are only  $n$  possible outcomes of the eventual game. But something like this, that's just unbeatable, really, unless you actually make it a really smart player.

**PROFESSOR:** Great. [INAUDIBLE] in the back. Randomness, player choice, affordances based on what you

got to work with.

**AUDIENCE:** So there's definitely randomness in it, because you draw your initial hand and every subsequent hand. And a lot of times, you can put together some ridiculous combination, [INAUDIBLE] would just get market, market, market, market, smithy.

**PROFESSOR:** What about [INAUDIBLE]?

**AUDIENCE:** What?

**PROFESSOR:** What about [INAUDIBLE]? Why'd you do that?

**AUDIENCE:** Well, so what he said-- right away, you just draw. And so what you can do is buy these action cards. And with these action cards, you can get free moves.

And the market-- I think it's the best one, because you get an action, a buy, a coin, and something else, whatever. And so what I would do is I'd play the market one, then he'd draw. So I'd play the market one, I'd draw. And then I'd draw market, I'd play market, and then I'd draw, and then draw market. And then I'd play market.

[LAUGHING]

And then when I'd draw, I would draw a smithy. And then you could draw two more cards, and I would just draw two more cards. And I'd be sitting here with 15 coins, or 20 coins, and I can do literally whatever I want. I can buy it however many times I want with however much money I want, [INAUDIBLE].

**AUDIENCE:** So yeah, there are definitely some really powerful combinations that plays with the luck factor. But at the same time, it feels there's a lot of skill in the game. It does also feel like if I played it 10, 15 times, I would have a very good sense of what to do, and the skill would start to go away.

Like if I played it 10 or 15 times, and everyone else did, I feel like we would be always much better at it. And there would be a developed strategy, or maybe two strategies, and counter-strategies, something along those lines. So they were saying it feels like infinite possibilities, only it didn't feel like infinite possibility.

**PROFESSOR:** So there are affordances in the game that can avoid that. What do you think they are?

**AUDIENCE:** [INAUDIBLE] There are a million cards.

**PROFESSOR:** Yeah, so that's the basic set. How many cards were in the basic set?

**AUDIENCE:** 500, [INAUDIBLE]. Although I don't know how many [INAUDIBLE] that actually change [INAUDIBLE] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17-- lots.

**PROFESSOR:** Lots, yeah.

[LAUGHING]

**AUDIENCE:** OK, so that should change it up, I guess.

**PROFESSOR:** Possibly. I mean, still, your inexperienced players will say that exact same. And maybe those expansions-- you can bring an expansion in and change some things up. I don't know. Anybody else who's played Dominion a lot-- have there been strategies that you've seen come and go, like there is in Magic?

**AUDIENCE:** I mean, it entirely depends what's out on the board.

**PROFESSOR:** Yeah, exactly.

**AUDIENCE:** Is there [INAUDIBLE] engine and still have the money to buy things? Or is there just really interesting action, or the other cards [INAUDIBLE] tiny deck. Or are there no specific [INAUDIBLE]? And that changes each time you play depending on how you set it up.

**AUDIENCE:** So there's a related game called Ascension, which I pretty much prefer more, but probably just because I've played it more, and that was my first one. It's really interesting, because instead of at the beginning, of Dominion, you randomly select a couple different tiles, basically. In Ascension, you actually just have a really, really big deck, and you shuffle that.

And you deal out just hold 'em style, just stick cards across the board. And then you take turns just being able to grab something from the middle and then replace that [INAUDIBLE]. So I feel like it makes it a lot more interesting, because it's much less predictable.

At any point in the game, something amazing or something crappy could flip. Rather than you know that you will always be able to buy, until the pile runs out of a different kind of card or something like that. So that's something interesting.

**PROFESSOR:** Anything else you guys want to say about the affordances? Like the rules or how the cards are

laid out? Anything that you got out of that?

**AUDIENCE:** I guess it's kind of a bigger game. So the rules were incredibly complicated at parts. But that being said, we did figure out, I had to ask him a couple of questions. But after that got settled, I think we all understood it pretty well.

**PROFESSOR:** That one's a great example of look at all these rules, oh wait, the game's actually [INAUDIBLE] simple to play.

**AUDIENCE:** Yeah, if we had someone who knew how to play sitting here, we could have probably started 10 minutes earlier.

**PROFESSOR:** Could they have come up with a different way of writing those things, or laying them out, or presenting them in a way that might have helped you out? I don't know. I bet.

Wait, [INAUDIBLE] question there? Oh, one of the questions for you guys, why do you think that was included in the list of these other games? What about that game is similar to some of these other games that you heard?

**AUDIENCE:** [INAUDIBLE]

**PROFESSOR:** No, but that's an interesting-- I just noticed that coming out. That's why I wanted to talk about rules. That's all.

**AUDIENCE:** Definitely the "luck versus skill" dynamic, I think, is pretty key in terms of, like you said, there's strings of luck. But I chose [INAUDIBLE] markets, right? So I was putting [INAUDIBLE] together, and that's definitely skill. So I think the mix is exactly [INAUDIBLE].

**PROFESSOR:** There's a depletion mechanic in that one, right? Did you read how you end the game?

**AUDIENCE:** Yeah. So we did run out of market-- we never-- we didn't have time to finish. We did run out of market.

**PROFESSOR:** Yeah. And I think it's once you run out of a couple of different kinds of cards, then it ends, right?

**AUDIENCE:** Re-tile before the [INAUDIBLE] card. [INAUDIBLE].

**PROFESSOR:** So you have to always have some kind of--



**AUDIENCE:** [INAUDIBLE]

**AUDIENCE:** No, [INAUDIBLE]. That's not true. That's [INAUDIBLE].

**AUDIENCE:** Oh, really?

**AUDIENCE:** Yeah.

**PROFESSOR:** So all these games have some kind of Solitaire-ness to them, where you can be playing on your own. But even if there's like a Solitaire-like work replacement style game, there's something that you're doing is interacting with the other player and preventing them from moving ahead. OK, so it is almost 3 o'clock. You can either continue playing your game or break into your teams and work on your projects.

It's your choice. I'm going to go grab all the kits. We've got one person-- are you one a team?

**AUDIENCE:** I'm not on a team.

**PROFESSOR:** Not on a team. So we've got one person joined a team. We've got a three-person team?

**AUDIENCE:** [INAUDIBLE]

**PROFESSOR:** For a two-player game or a four-player game?

**AUDIENCE:** Two to four.

**PROFESSOR:** Two to four?

**AUDIENCE:** [INAUDIBLE]

**PROFESSOR:** OK, so I would recommend hang out with them for the last hour. And then maybe even scrounging around to find a team to go onto.

**AUDIENCE:** [INAUDIBLE]

**PROFESSOR:** What's that? The other teams are four-two people? You can have a five-person team.

**AUDIENCE:** [INAUDIBLE]

**PROFESSOR:** [INAUDIBLE] check out what [INAUDIBLE] Yeah. Yeah, not requiring you to be [INAUDIBLE].