Ascension: a Case Study in Deckbuilding Games

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ABSTRACT
This article describes the mechanics and dynamics of deckbuilding games, using *Ascension* (Gary et al. 2010) as a representative example. I outline the general mechanics of deckbuilding—deck manipulation and cycling—and show how *Ascension* implements these genre conventions, while also elegantly integrating established tableau-building mechanics. Specifically, and unlike the fan-favorite *Dominion* (Vaccarino 2008), *Ascension* randomizes the availability of cards, thus almost entirely eliminating dominant strategies. The above characteristics, a variety of personal strategies, and a number of viable play styles generate the game's unique dynamics and aesthetics, which can vary significantly between games in the genre.

Keywords
deckbuilding, game analysis, well-played, Ascension, Dominion, tabletop games

A PRELUDE (TO MADNESS)
It's 2am on a Monday morning. I'm ready to call it a night when my phone lights up, signaling that it's my turn. I could simply ignore this and make my next turn after some sleep. Instead I tap on the game's icon, and, just as I start, a tiny light in the corner of the screen shifts from red through yellow to green; my opponent is online, and there's no way I'll sleep anytime soon. The person on the other end is my friend Doug, and for a few months in late 2011 we indulge in a nightly ritual of playing at least two complete games. We are playing the card game *Ascension* (Gary et al. 2010) implemented as an iOS application, and what follows is an account of how it has impacted my thoughts on game design, physicality, cycles, conversations, probability, and life.

Ascension is a turn-based, deckbuilding game. Starting with the same set of ten cards in a personal draw pile, each player pulls her own hand of five cards every turn. These five cards provide resources for the acquisition or defeat of six cards drawn and laid out face-up in a persistent center row. Acquired, defeated, used, and unused cards all retire to the player's unique discard pile at the end of each hand. If a player's draw pile runs out, her discard pile is reshuffled into a new one, thereby making previously purchased cards available on later turns. Players defeat monsters to earn honor tokens from a central pool, but significant amounts of honor may be gained by purchasing specific, honor generating cards. Once the honor pool is depleted, the player with the most honor—the sum of her honor tokens plus value embedded in most purchasable cards—wins.

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It is safe to say that *Ascension* rekindled my love of tabletop games. Aside from acquiring the physical game, including its four expansions, I have been on a board-, dice-, and card game binge. My living room looks like a sampling of the top five-hundred games on boardgamegeek.com (2013). I own ~175 tabletop games at this point, and I am constantly adding to the collection, which, thanks to living within the confines of New York City, will necessitate a culling session in the near future. Despite my "real" life in videogame design and research, where the physical medium is mostly invisible, my love of tabletop games grows steadily. The ubiquity of (online) opponents, my tendency to favor strategically deep games such as *StarCraft 2* (2010) and *Chess*, and having tired of the sameness I feel in many contemporary single player video games, I long for the intimate play and conversation of two-player (and sometimes three- to six-player) games.

And I've come to understand that, for me, there's no better place for this than in the practice of playing at a table. This may not seem like much of an epiphany to others, but it is a realization that remains personally meaningful: I favor the "game" over the "video".

But it all started with *Ascension*. A card game. A deckbuilding game. Played on a phone. My player profile shows six-hundred and ninety 1v1 games (played on the iOS version) with a win/loss of 364/326, or 1.12. This is at least some indication that I have tipped the odds ever so slightly in my favor. Or at least this is what I would like to believe. In the absence of an Elo-like rating system, who knows? What I do know is that I'm enjoying it, that the designers at Stoneblade Entertainment have modified the formula devised by Donald X. Vaccarino's in his seminal game *Dominion* (2008) in critical ways, and that my gut feeling tells me we have only scratched the surface of what is possible using in-game deck manipulation and cycling mechanics.

DECKBUILDING

Ascension is a card game, played with a deck of custom cards. It comes with a board for card placement as well as some plastic gems that are used to form the honor token pool—or their virtual equivalents (see Figure 1 below). It's a deckbuilding game in the contemporary, post-*Dominion* sense. The key contrasts here are with deck customizing genres, such as the collectible card game (CCG) form popularized by *Magic: the Gathering* (1993). In *Ascension*, each player starts with the same ten cards in personal draw piles. On her turn, the player takes five cards from the top of that pile into her hand (drawn at the end of her last turn) and uses the abilities on these cards to acquire more powerful cards, cull weaker cards (thereby removing them from play), draw more cards from the draw pile, and/or defeat monsters for honor points.

At any given time six face-up cards occupy the center row (a random mix of heroes and monsters drawn from a central pile). Beside this row reside the two standard purchasable hero cards, the mystic (+2 runes) and the heavy infantry (+2 power); runes and power are the resources used for purchasing and defeating, respectively, cards from the center row. Next to the standard heroes dwells the cultist card, which can always be defeated for one honor token at the expense of two leftover power points. At the end of a turn all purchased cards, as well as any cards played on this turn (used) or remaining in the player's hand (unused), go into the player's discard pile, and she draws five new cards. If her draw pile runs out at any point, the discard pile is shuffled to form a new draw pile, thereby "re-cycling" her entire personal deck.

Figure 1: Round one of *Ascension*, with 60 honor tokens left (top center). The bottom player has 5 cards in-hand (bottom row) with which new cards can be acquired. Here we see 5 heroes and one monster (in red) on the center row. This is an especially fortunate first round, as the player can acquire either "Lionheart" (gain 3 honor + unite) or "Ascetic" (draw two cards).

Unlike in CCGs, *Ascension* integrates the deck construction aspect (the act of creating one's own custom collection of playable cards) into the core game system, and the player cycles her entire deck multiple times per game. I believe these to be the two defining features of the deckbuilding genre. The player is essentially, through careful deck manipulation (i.e. acquiring and culling), designing an *engine.* Acquiring or culling cards—if these actions are available on any given turn—provide *strategic choice* about card synergies and proportions, because acquired cards will appear in-hand only after being shuffled and randomly drawn (see Figure 2 below). Similarly (and this is especially true in the mid- to late game), the sequence in which a single hand plays out provides *tactical choice* and opportunity for short-term optimization.

Deck manipulation occurs under game state-specific resource and availability constraints that, depending on player choice and the randomized population of the center row, may turn out to be hopelessly insufficient... or produce a crushing victory. To see a beautifully-designed engine play out is quite mesmerizing, much like an expertly executed combo in *Super Street Fighter 4* (2010). The obvious differences between the two reside in their spatiotemporal discretization (i.e. turn-based vs. real-time) and divergent demands on player dexterity. But given that the player creates the engine in a deckbuilding game, it arguably generates a greater sense of agency and tactical accomplishment. *Puzzle Strike* (2010) provides a shining example of this concept, where each deck represents a character in the Fantasy Strike universe; the player performs moves, but she also develops her character as part of the battle and thus co-designs the game's dynamics.

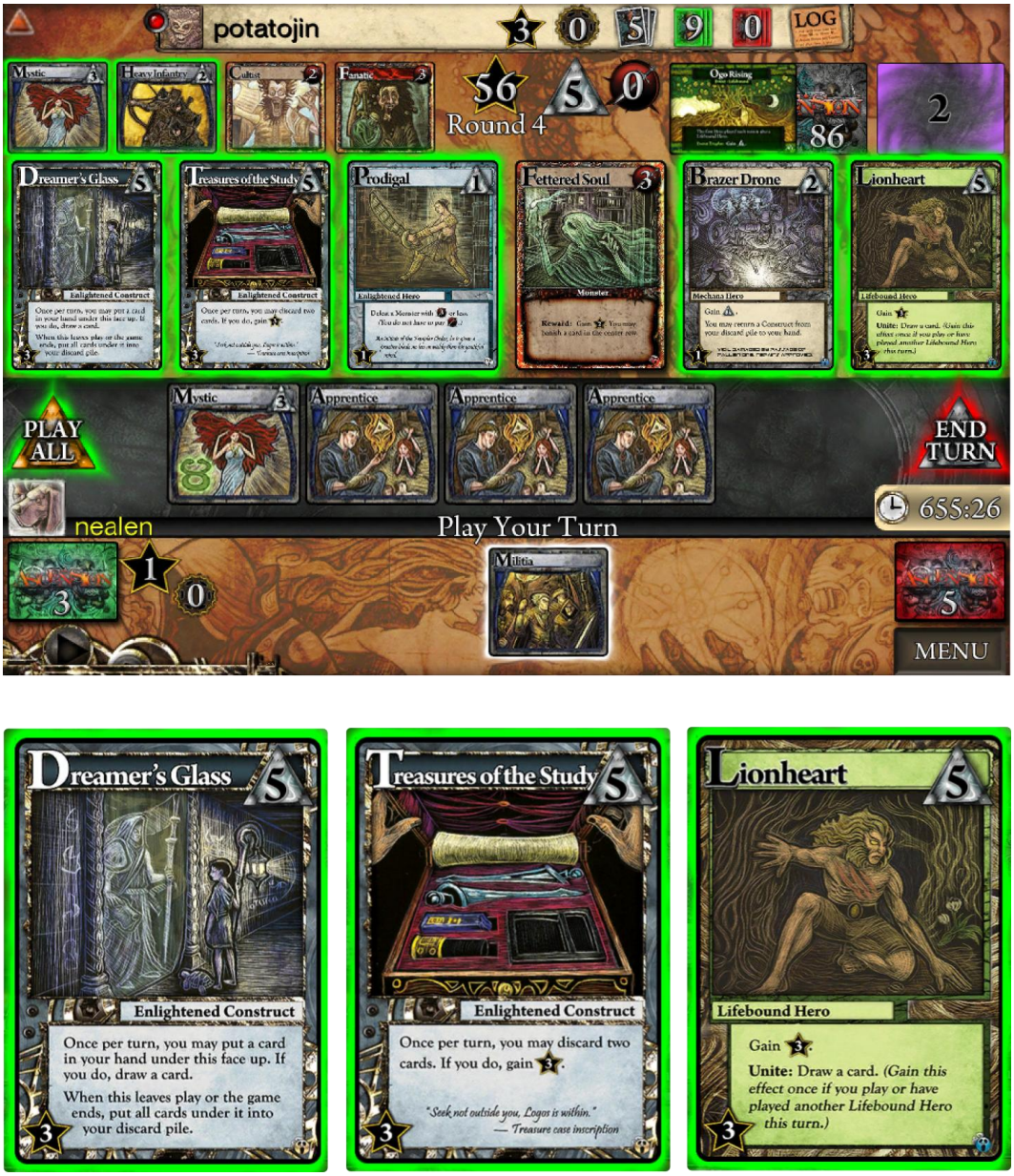

Figure 2: A game in its early stage (56 honor, see top screenshot). The player has a tough decision to make. For five runes, one of either "Lionheart", "Treasures of the Study", or "Dreamer's Glass" could be acquired (bottom 3 enlarged cards). All of these cards work well in an "honor rush" strategy. Given that the game is only in round four, Dreamer's Glass (DG) may be the best choice (it allows the player to place card from the hand under DG, then draw a new card). But, once in play, the opponent may destroy that construct, forcing the player to place all cards under DG into the discard pile. Perhaps Lionheart is less of a risk? And what is the opponent eyeing and looking to acquire?

To avoid ambiguity, some potentially contentious points are worth mentioning: genre descriptors and key terms. While *M:TG* allows offline, pre-game deck construction and drafting, the deckbuilding genre described in this article has no pre-game component. For the most part, every player starts with the same basic and relatively weak deck, as is the case in *Ascension*, where players start with 8 apprentices (+1 rune) and 2 militia (+1 power).[1] This can also be stated as *uniform initial conditions*, which is not generally the case in *M:TG*.

The second unique concept is *cycling*. In *M:TG*, cycling means to draw (or search for) a desired card within the draw pile at the cost of the card allowing the cycling ability.[2] While this does speed up access to the deck, it does not necessarily "re-cycle" it. The term cycling finds its truest implementation in deckbuilding games, where players regularly reshuffle the entire deck. Acquired cards may amortize their own cost simply by seeing more than a single use per game. I use the terms *deckbuilding* and *cycling* throughout this article, but they should not be confused with their counterparts used in popular CCGs.

THE CHARACTERISTICS OF ASCENSION

As has been described more eloquently by others, much of what makes a game does not reside in the static description of its rules (Hunicke et al. 2004, Wilson 2012). And while an analysis of how design parameters influence the dynamics of the game is interesting in its own right, I will first describe some typical game situations and gradually introduce what I perceive to be the defining parameters of the game, including their variations and instantiations in different deckbuilding games.

In the most basic terms, a turn of *Ascension* consists of (a) putting cards into play (playing them from ones hand to the table), (b) following the instructions on the played card (e.g. draw more cards, banish a card in the center row, etc.), (c) adding up power and/or runes of played cards, and (d) acquiring or defeating cards (while following the instructions on defeated cards). It is important to note that, especially in the mid to late game, the sequence of these actions is of great importance; each purchase or monster defeat will change the state of the center row (a new card is drawn to fill in the vacant slot), and there are no strict limitations as to how many available cards can be acquired or defeated.

Early, Mid, and Late Game

The dynamics of *Ascension* are, to some degree, correlated with the notions of early, mid, and late game and their (deliberately fuzzy) transitions. Look at the setup for a 1v1 game: Starting with sixty honor tokens, and given that the end condition is the depletion thereof, at any given point in the game the remaining honor tokens can be seen as a *game timer* of sorts. It is not a timer in the traditional, "one-tick-per-turn" sense but rather as a variable rate at which players defeat monsters and play hero abilities, both of which deplete honor points from the finite pool. And the rate at which honor is gained tends to accelerate as the game progresses, depending on whether players "rush" or "stall" by acquiring and playing fast (aggressive) or slow (economy) cards, respectively.

Despite the aforementioned fuzziness, I like to think of early, mid, and late game in terms of an equal split of the honor pool into three ranges of twenty honor points each. The game-winning honor points can be gained through the token pool (mostly by defeating monsters in the center row) but also by acquiring hero and construct cards that come with

honor points printed on the card. Unlike defeating monsters, these do not deplete the token pool. And it is clear that the designers intelligently use each card's cost-effect ratio to balance the game. The most efficient, sustainable early game cards are affordable and provide low endgame honor points, but they have a strong overall effect on the game's shape if cycled often. Strong late game purchases cost a lot but reward high honor, ideally returning honor for runes spent at a 1:1 ratio.[3]

Availability

Can one always know that a given card makes good early, mid, or late game acquisition? How does this decision change given different contexts and match dynamics? These questions dominate *Ascension*'s robust metagame. Writers on the *Ascension* forums convincingly argue against the existence of purely dominant strategies (Stoneblade Entertainment 2012). The source of complexity here—and much of the contention to the game raised by its critics—resides in the randomness of center row *availability*, which marks the game's major departure from the fan-favorite *Dominion* (2008).

In *Dominion*, players select a set of ten kingdom cards from (as of this writing) 187 possible kingdom cards, each having a unique ability. This card selection may be done at random; it could also be designed for specific dynamics by the publisher or its more intrepid devotees. Once selected, only ten of each of these cards exist within the bounds of a single session. In other words, the players need to collectively acquire (in *Dominion*'s jargon, the term is "gained") a card ten times to deplete it.

High-level *Dominion* players can look at the available kingdom cards at the beginning of the game and try to form an overall strategy. Some people perceive this as a puzzle-element inherent in the game's initial condition, to figure out *a priori* which cards might work well in combination. Much of the fascination of playing *Dominion* stems from playing a chosen strategy in light of other players' strategies, which force its characteristic endgame rush for victory points at variable rates and degrees of predictability. *Ascension*'s version of availability is much simpler. Players shuffle all heroes, constructs, and monsters into a single deck, making 6 of them available at any given time. This requires that players constantly adapt to the shifting game state.

Card Types and Points

The version of *Ascension* I have played the most mixes cards from the second and third expansions, *Rise of the Fallen* (*RotF*) and *Storm of Souls* (*SoS*). Most of my regular opponents find the base set—*Chronicle of the Godslayer*, or *CotG*—to be lacking in variation. Of course, players often say the same of vanilla *Dominion* (or vanilla *World of Warcraft*, for that matter). Center deck cards in *CotG* don't allow for much interesting combination, and they often simply represent stronger versions of the basic cards (enhanced buying or killing power).

Players seeking more depth tend to quickly retire the base set in favor of the more advanced expansions. Mixing *RotF* and *SoS* creates a center deck of 165 cards, forty of which are monsters, thirty-six are constructs, and the remaining eighty-nine are heroes. To recap why one might prefer this or need to know it, every time a center row card is purchased or defeated it is immediately replaced with a new card from the top of the center deck. The forty monsters are worth 134 honor points total, meaning that, in general, a 1v1 game will not result in the center deck running out of cards (because only sixty honor tokens exist in the finite pool).

The heroes and constructs vary in cost, ability, and rarity. Each belongs to one of the four factions of *Ascension*'s light fiction: Enlightened, Lifebound, Void, and Mechana. These groupings roughly follow functional or mechanical styles, coupling the actions they afford to themes from the game's lore.

Enlightened cards mostly act as "accelerators" that allow the drawing more cards from one's draw pile, but this family also contains cards that cull other cards in favor of standard heroes, banish cards in the center row, and defeat monsters without paying their power cost. Lifebound compositions are all about passively acquiring runes and honor tokens—the key metaphor being that of plant life—placing purchased cards on top of the draw pile instead of the discard pile, and capitalizing upon powerful combos that trigger after playing multiple Lifebound heroes in a single turn.

Void cards focus on accumulating combat power and banishing cards from one's hand or discard pile, so players tend to use them in so-called "rushdown" builds designed to weed out weak cards while quickly defeating monsters; this rapidly depletes the honor token pool and ends the game before an opponent's engine can gather momentum. While each of these three factions have a ratio of about 3:1 (on average) between heroes and constructs, the Mechana set consists mostly of constructs; these cards stay in front of the player, forming a "tableau" with powers that may trigger on every turn. In concept, this is similar to the critically acclaimed tableau-building game *Race for the Galaxy* (Lehmann 2007), from which *Ascension* also borrows its end condition of depleting a points pool.

Strategy

Given a variety of pure strategies—such as the aforementioned rushdown, or the Mechana/construct feedback economy, or racing for strong center row cards, and numerous combinations and corner cases—it becomes hard to describe the dynamics and shape of a "typical" game of *Ascension*. Playing the game requires adaptation to the ever-changing state of the game communicated through the honor pool, center row cards, and purchase history (i.e., the potential abilities) of each player. Different play styles emerge when an opponent reacts to one's cues toward an obvious strategy, or when she makes idiosyncratic decisions due to a commitment to a specific strategy, or when players react radically differently to a given center row configuration. "Mixing it up," or making oneself less predictable, is just as important in *Ascension* as in *Super Street Fighter 4* or *StarCraft 2*. Mixed strategies pay dividends when the center row leans towards a paucity of monster cards for long stretches of a match.

Boardgame aficionados often refer to deckbuilding games as "multiplayer solitaire" games, due to the limited interaction between players. Specifically, they subscribe to the design strategy of eliminating targeted interaction, which European tabletop games helped to popularize. Actions in *Ascension* rarely target a specific player (this depends largely on what expansions one plays), but one key feature differentiates the game quite drastically from *Dominion*: the shared game state via the center row cards and their manipulation. This concept also exists in *Thunderstone* (Elliott 2009) in the form of a shared dungeon with monsters.[4]

Center row manipulation—whether through the acquisition, defeat, or banishing of cards—shows the passage of (game) time, and this directly influences many decisions. Here is one (admittedly complex) example: If a player possesses cards that control the center row, such that powerful monsters can be banished or defeated that would otherwise allow the opponent(s) to destroy valuable constructs, that player may decide to acquire

constructs that may otherwise not be worth the runes. Or if a player has a few runes remaining at the end of her turn, she may decide to purchase a standard hero (Mystic or Heavy Infantry), instead of acquiring a center row card, thereby passively creating opportunities for her opponent. Sometimes it makes sense to avoid buying something that's worth X, especially if X is less than the expected value of a random new center row card for the opponent.

Players often race to buy or banish powerful cards with a high rune cost. This mostly occurs in the early game, when players repeatedly find themselves strapped for runes they need to kickstart build strategies. This situation becomes especially interesting if an inexpensive early game card is also available—one example being the Lifebound construct "Everbloom" which, at a cost of only 3 runes, provides one honor token per turn once it is in play. There's a danger of overcompensating in an attempt to increase the likelihood of drawing a sufficient number of runes, but a skilled player can offset this by adding accelerating Enlightened cards that also allow extra card draws.

Integration and Accessibility

The aspects that most likely explain the critical and commercial success of the deckbuilding genre are the *integration* of deck manipulation, and the resulting *accessibility*. While the set designs of *Dominion* and *Ascension* have become rather complex—and new, card-specific strategies are cropping up all the time—getting started is relatively easy. The first few turns of every game, which may feel a bit slow for experienced players (and there are equivalents in high-level *StarCraft 2* opening builds or *Chess* openings), are a blessing to the beginning player. Someone less familiar with the game can experiment from a clean slate every time they play, without having to overthink every single decision in the early stages of the game.

Ascension affords experiential learning (Kolb 1983) and does not require in-depth study of a complex set of rules. Seen through a different lens, players simply deal with game states and complex decision-making situations when they occur, and one needs not immediately see the bigger picture when acquiring to or culling from one's deck. This has helped me get non-game people into *Ascension* and *Dominion* on more than one occasion. Try teaching an inexperienced player to design a deck in *M:TG*, and watch their eyes glaze over, if you'd like to see the inverse effect firsthand.

Cycling

Cycles are beautiful. Their patterns and variations are ubiquitous in nature and our lives. It should come as no surprise that shaping a deck, then seeing elements appear multiple times in diverse and calculated constellations, would share this beauty to some degree. Mitigating randomness through strategic choice and thereby loading the dice in ones favor is, at least for some people, one of the pleasures of life. We yearn for signs that, despite overwhelming signs of a necessary chaos, there exists some form of choice and agency. And in this register, deckbuilding games reveal an “eternal return of the same.” This property, invoked through the discard and drawing deck rules (but also through cards that accelerate the deck) are inherent to all deckbuilding games.

Nowhere is this cycle as elegantly integrated into the theme as in the solo deckbuilding game *Friday* by Friedemann Friese (2011). Inspired by the novel *Robinson Crusoe* (Defoe 1719), *Friday* presents the player with three decks: Robinson, hazard, and aging. The Robinson deck represents the player's current abilities and deficiencies, with which one can go up against hazards; the player must decide which of two randomly drawn

hazards to confront per turn. The player defeats hazards to add abilities to her deck, or sometimes she deliberately loses against them to allow for the culling of weak cards from the Robinson deck at the cost of life points (the player starts with 20).

As the hazard deck cycles, the challenges increase in difficulty through three stages. As the Robinson deck cycles, one aging card shuffles into the deck at random. Operating on the assumption that aging divorced from the attendant increases in wisdom or tool-use (becoming physically more feeble) is not beneficial to one's survival, these cards are not only useless, but harmful, subtracting from Robinson's attack power. As mentioned earlier, player agency is tangible in *Friday*, as one is forming a character; the deck represents Robinson, and the player is combating both island hazards and the effects of aging. I prefer playing *Friday* as a cooperative game with friends, thereby involving more people in the discussion, but I would recommend that anyone interested in deckbuilding games play this game at least once.

THE PARAMETERS OF DECKBUILDING

Given the features of *Ascension*, and numerous playthroughs, one begins to see how it differs from its brethren. Game designers have a tendency to introduce adjustable knobs in their systems, and then they tweak them to facilitate a specific game feel; this might be seen as a dramatic arc making the game interesting to play, something Frank Lantz calls "gameshape" (2012). Unsurprisingly, deckbuilding games have many such knobs, and their commonality (along with some shared mechanics) is what defines the genre. A few of the most important design variables include:

Initial conditions. In *Dominion* and *Ascension*, all players start with a deck of ten identical cards, thereby allowing for any possible strategies. In contrast, *Puzzle Strike* (Sirlin 2010) introduces the notion of character specific starting decks, thereby making unique strategies (rushdown, economy, defense) more or less viable for each individual.

Available slots. Many deckbuilding games, including *Dominion* and *Ascension*, use a standard hand-size of five cards per turn, but newer games such as *Legendary* (Low 2012) allow players to draw six cards.

Available cards. While *Dominion* makes ten piles (of ten cards each) available, and *Ascension* randomizes the availability of six cards via the center row, a game like *Core Worlds* (Parks 2011) requires a more elaborate, predetermined setup that makes explicit in which round (out of ten) specific sets of cards become available.

End conditions. While the aforementioned *Core Worlds* (Parks 2011) ends after a fixed number of rounds, *Dominion* and *Ascension* both end with the depletion of some obtainable resource: card pile(s) or honor tokens, respectively.

Win conditions. Most deckbuilding games use some notion of victory points (VPs) to determine the winner—though *Puzzle* Strike, with its goal of being the last player standing" after a turn-based melee, represents a divergence here. The key difference in *Dominion* is that players can only acquire (most) VPs by purchasing expensive cards that have no ability other than their VP value. Thus, they provide crucial points towards the win state while progressively weakening the hand-to-hand effective of the player's deck; when drawn into the player's hand, they block a slot that might otherwise be used to build the engine or acquire more VP. This may be one of the most elegant examples of a balancing feedback loop (catch-up) in a game system, and it is surely one of the reasons

many players find themselves drawn to *Dominion*. The key strategic decision lies in figuring out when one's engine reaches a powerful enough stage to afford a "watering down" by expensive Province cards and force the end condition... all the while observing the engines and purchasing behaviors of one's opponents. *Ascension*, on the other hand, exemplifies a reinforcing feedback loop (otherwise known as "snowballing") that only gathers momentum, and requires capping.

Many more parameters exist, such as types and number of resources, and these can be split into *first order* and *second order* parameters. Typical first order resources are gold (*Dominion*) or runes and power (*Ascension*). But *Dominion* also provides second order, indirect resources, such as *actions* and *buys*. Specifically, the game limits the player to one action and one buy per turn unless cards are played that add to these quantities. *Ascension*, while increasing complexity by adding a first order resource (power), simplifies this process by removing actions and buys altogether, thereby allowing the player to play, acquire, and defeat as many cards per turn as there are runes and/or power available. In general, and as mentioned above, this tends to facilitate more tactical variety (i.e. combinatorial complexity of play sequence) per turn.

CORNER CASES AND THE CONCEPT OF DENSITY

Most games will see players picking different pure or mixed strategies, and they hope that the center row availability of the early, mid, and late game matches their chosen strategy. Given the honor point value of every single card (excluding the initial ten cards), a player generally uses runes to purchase as many cards as possible on her turn. But with respect to the chosen strategy, especially in a rushdown, many cards will merely weaken the overall composition when added to the deck. This is not unlike the VP cards in *Dominion*, although the distinction as to whether a card is too weak to be acquired—and especially in which stage of the game this might be true—is significantly less obvious. *Ascension* heroes and constructs are *never* only VP cards, but they also have varying abilities, some of which are significantly better than others.

In other words, one is trying to maximize the density of *strategically relevant* cards in one's deck, while avoiding cards that could get in the way or dilute the deck. This is especially important when multiple cards need to show up in the same turn to maximize their efficiency, such as Lifebound "unite" abilities that trigger when two or more such cards have been played on a single turn. Whether this happens through culling weak cards, predominantly purchasing Lifebound cards, or drawing more cards on one's turn (or a combination of all of the above) is mostly dependent on center row availability and opponents blocking the strategy by acquiring the cards needed to complete the picture.

I use the term "strategically relevant" above for a reason: While it might seem obvious to cull the ten weaker starting cards as soon as possible, there are some corner cases where knowing which card will be drawn next is a blessing. The "Great-Omen Raven" card makes a good example case for this principle. The action on this card is as follows: "Name a card. Reveal the top card of your deck and put it into your hand. If it is the named card, gain 3 honor" (from the honor pool)."

In one particularly unique game, I had the rare opportunity to acquire two such cards (at a cost of two runes each) on my first turn. I added these cards to my deck with full knowledge that, in order for my chosen strategy to work, I would not be able to purchase any more cards for the remainder of this game. I'd need to guess correctly every time I

used the Raven, gain three honor points from the pool each time, and thereby rush down my opponent without defeating a single monster. And of course this would only work by keeping the initial, high density of Apprentice cards (8/12 = 0.67) constant. The game ended after thirteen rounds, and the strategy almost worked: I lost 57 to 53, or close enough to justify more experimentation,

Players have a tendency to point out such rare corner cases as "broken" or "degenerate," but, given the rarity at which they occur, I classify them as the occasional outliers that reveal under-explored depths to the game's mechanics. These corner cases add to the lifespan and beauty of the game.

A less rare case of interesting choice occurs when one faces the decision to sacrifice a non-trivial card for a potentially greater benefit. I once found myself in a situation wherein, about halfway through the game, I was able to acquire a Mechana construct worth 7 honor, but only if I was willing to banish a heavy infantry card (+2 power). I had been playing a rushdown strategy (where power is key), but my opponent had been doing the same with slightly more success. I decided to make the sacrifice. By switching to a mixed rushdown/economy strategy, and through no small amount of luck (I was able to use said Mechana construct to acquire another valuable construct), I ended up winning the game by four points.

In hindsight, I wonder whether this was the key move of the game. Of course, from the point-of-view of the overall systemic complexity inherent in the game, it is nigh impossible to answer this question. But, as a player, this moment felt salient; more than any other move in that game (none of which I recall) it added to my living, cognitive book of *Ascension* heuristics.

ON WINNING AND LOSING IN ASCENSION... AND OTHER GAMES

Losing streaks in *Ascension* can really crush your soul. Whether attributed to a series of bad hands or lucky center row availability for the opponent, or to my own inadequate mental models, heuristics, or mix-ups, tensions flare in the heat of the (drawn out) moment. Only after stepping away can I see the intricacies of the system; only with careful reflection can I recognize the series of bad choices I made. It is in situations like these where it would be simple to fall back to the Devil's greatest trick: Saying “it’s just a game.” Why would I indulge in the painful, hard work of post-game analysis?

In competitive play, the level of disappointment I feel in my own skills as a player is directly proportional to my time investment. One could liken the excruciatingly slow real-time strategy (RTS) game *Neptune’s Pride* (2010) to the Stanford Prison Experiment. Take a short political game, redesign it to last weeks instead of hours, and sit back to watch the fireworks. The results are fascinating, ranging from alliances to back-stabbing to heated discussions. More than any other recent videogame, *Neptune’s Pride* has anecdotally impacted real-life friendships in meaningful and far-reaching ways (RPS 2012).

But Neptune's Pride's time investment is forced, not optional. One game can take many weeks. In other words, *going deep* is not optional, but par for the course. I am at odds with this, as I tend to prefer what Randy Smith once termed “depth on demand,” meaning that one "gives players a high rate of success but lets them pursue additional accomplishments to truly master it" (Smith 2010). Elias, Garfield, and Gutschera in

Characteristics of Games open with the important parameter "length of playtime" (Elias et al. 2012). They differentiate between atom, game, session, and campaign. While the atom within a game of *Neptune's Pride* is much shorter than the duration of an entire game, I seem to be more interested in the atom. Perhaps my personal preference favors optional engagement over the mandatory.

Leading back to *Ascension* and deckbuilding, I prefer games where I can have a compressed experience. A game that shows me all the nuance, depth, computational complexity, and meaningful choice in a matter of minutes or hours, such that a session can be completed in an afternoon at most. Deckbuilding games have this intrinsic quality. They afford exploration of the possibility space in short but varied bursts by allowing the player to see the entirety of one's construction multiple times per game. Depth results from arrangements, combinatorics, and density.

In simpler terms, I get to have it all, the cost being said intense streaks of losing—with a rapid turnover rate in matches, reflection and repair often comes only after a series of poor performances. This somewhat mirrors my experiences as a scientist, designer, writer, and artist, constantly inquiring and testing... and failing more than succeeding. It's in my nature to ask falsifiable questions and to test my often erroneous assumptions.

The surprise, and catharsis, of this probing play- and work-style comes when an assumption turns out to be true, when cards cleanly combo, when some causal connections can be made and some heuristics adjusted, or when some unlikely sampling of all possible game states does come to pass. I've dedicated my life to having this probabilistic conversation, even though, at times, it can feel like I'm losing my mind. But, in the end, and despite the brutal reality of Sturgeons Law, the highs outweigh the lows.[5]

HYBRIDS

The current trend in deckbuilding game design is to merge deckbuilding mechanics with any number of other mechanics, and some games have done this to great effect. One of the more popular games emerging from this fertile ground of experimentation is Vlaada Chvátil 's *Mage Knight* (2011). *Mage Knight* is a board game that simulates a role playing game in which players explore a randomly generated world comprised of hexagonal tiles, acquire influence to recruit mercenaries, and defeat monsters for points.

In *Mage Knight*, the passage of time and the abilities of each player are determined by each player's deck of cards, and players expand this deck of cards by conquering landmarks. Conversely, deadweight wound cards are added to the deck if a player is hurt in battle, and these can only be discarded by resting—thereby using up an action. Once a player has cycled through the deck, the round ends, and a new round begins with a freshly shuffled deck. Chvátil's design elegantly combines elements from RPGs—such as experience, time, player stats, and alignment— with the design and cycling of a deck of cards. Due to each card having multiple possible abilities, of which only one can be used per hand, every hand feels like solving a puzzle or optimizing a machine.

While describing all available hybrids (or even the currently available deckbuilding games) at sufficient length is outside the scope of this article, it is worth mentioning that the core mechanics of deckbuilding games have found their way into two-player area control wargames. In *A Few Acres of Snow* (Wallace 2012), the deck models the

uncertainty of armies and supply lines. And *For the Crown* blends *Chess* with deckbuilding to generate unconventional pieces and movement rules.

THE EVOLUTION OF A GENRE, ITS PLAYERS, AND ITS DESIGNERS

If the current popularity of *Ascension* is any indicator, we will see more uses of its core mechanics in other games. Ideally, the key ingredients—integrated deckbuilding and cycling—will mesh in novel and meaningful ways with the play systems and fictive themes of newer works. Whether used as a standalone game mechanic or merged with other genres to form entirely new systems, experiences, and genres, the play dynamics afforded by crafting and cycling are too numerous for designers to have already plumbed their depths within the past few years.

Sometimes a play community complains about the stagnation of a celebrated subgenre, and there has certainly been a backlash against deckbuilding games in recent months. Some developers seem to want to squeeze every last drop out of the game that *Dominion* invented instead of working on the next big thing. *Dominion* already has seven (!) expansions, and *Ascension* is on its fourth expansion. For fans of a specific game, including myself, these expansions add to the experience. On the one hand, they contribute to world-building and exploration through themed deck design. But they also add to and iterate on mechanics. While I appreciate this as a player, the designer in me longs for radically different uses of the core mechanics, both in systems and how they are tied to theme.

But I should not complain too much. It does not often happen that we see a distinctly different type of game mechanic emerge. Deckbuilding games provide us with an accessible way to experiment within a closed system, only using relatively simple operations that require little to no prior experience. They allow us to evaluate our possibly flawed heuristics, ideally making these flaws transparent such that we may adjust them accordingly. Having this conversation about the design and relative value of the game's elements, through the play of the game, is one of the most enjoyable aspects of playing *Ascension* and other deckbuilding games.

The games that I enjoy most are those that allow a player to design her own “version” of the game, ideally surprising the community with strategies never conceived by the game's creators. Recently I have taken to the re-release of Richard Garfield's “Living Card Game” *Netrunner* (2012), but I still gravitate towards the *clean slate* of deckbuilding games. They contain just enough depth for me to make competent strategic decisions without necessarily dedicating my life to them. Having played so many of these games in the past two years, I am inclined to design my own variant. Some preliminary notes exist, and there will be characters, drafting, learning, evolution, pacing, and battle. If I could only find the time to design an initial set of cards and cycle through the iterations needed to improve the design!

StoneBlade entertainment recently ran a successful Kickstarter campaign for *Ascension Online* that will be available on PC and support online tournaments. I assume (and hope) that the designers will include a robust Elo rating system, so as to reward skill and study against evenly-matched opponents. Only then will I truly know how bad I am at this wonderful game.

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ENDNOTES

1 David Sirlin's *Puzzle Strike* (2010) does not have uniform initial conditions, although they can be implemented by using the same starting chips, if one owns two copies of the game.

2 "*Magic: The Gathering*: Cycling" (2013) Available at http://wizards.custhelp.com/app/answers/detail/a_id/235/~/magic%3A-the-gathering%3A-cycling (accessed May 2013).

3 See Gutschera's (2007) excellent treatment of this topic in the context of balancing *M:TG*.

4 I like to think of *Thunderstone* as the *Diablo* (1996) of deckbuilding games.

5 "Ninety percent of everything is crud," Theodore Sturgeon (1958); similar to the Pareto principle, see http://en.wikipedia.org/wiki/Pareto_principle.

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