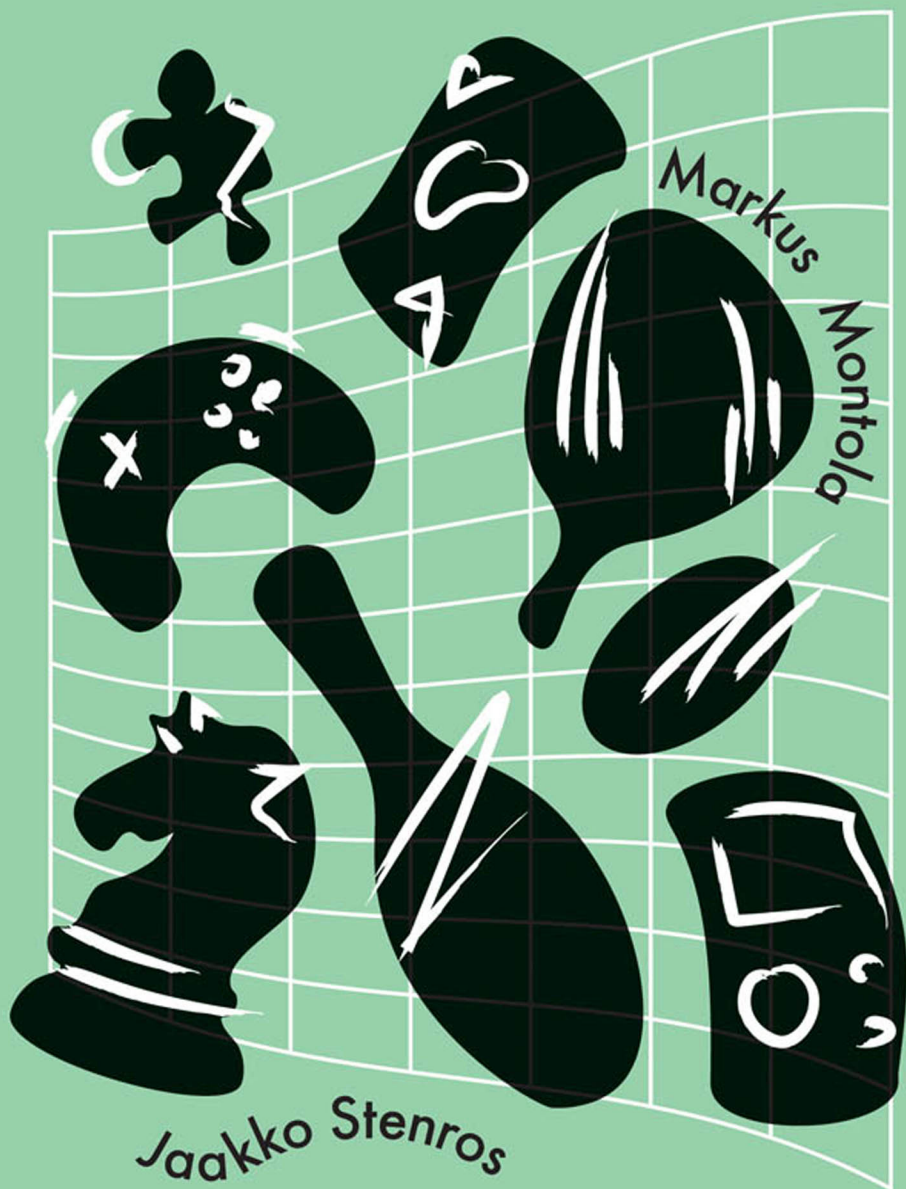


The Rule Book

THE BUILDING BLOCKS of GAMES



The Rule Book

Playful Thinking

Jesper Juul, Geoffrey Long, William Uricchio, and Mia Consalvo,
editors

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The Rule Book

The Building Blocks of Games

Jaakko Stenros and Markus Montola

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On Thinking Playfully

Many people (we series editors included) find video games exhilarating, but it can be just as interesting to ponder why that is so. What do video games do? What can they be used for? How do they work? How do they relate to the rest of the world? Why is play both so important and so powerful?

Playful Thinking is a series of short, readable, and argumentative books that share some playfulness and excitement with the games that they are about. Each book in the series is small enough to fit in a backpack or coat pocket and combines depth with readability for any reader interested in playing more thoughtfully or thinking more playfully. This includes, but is by no means limited to, academics, game makers, and curious players.

So, we are casting our net wide. Each book in our series provides a blend of new insights and interesting arguments with overviews of knowledge from game studies and other areas. You will see this reflected not just in the range of titles in our series but also in the range of authors creating them. Our basic assumption is simple: video games are such a flourishing medium that any new perspective on them is likely to show us something unseen or forgotten, including those from such

unconventional voices as artists, philosophers, or specialists in other industries or fields of study. These books are bridge builders, cross-pollinating both areas with new knowledge and new ways of thinking.

At its heart, this is what Playful Thinking is all about: new ways of thinking about games and new ways of using games to think about the rest of the world.

Jesper Juul

Geoffrey Long

William Uricchio

Mia Consalvo

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Introduction

When we were kids, we used to sometimes play the game of *pick-up sticks*.

The basic procedure is clear: one player drops the sticks in a tangled pile, and every player in turn tries to remove a single stick without moving any of the others. Some know the game as *Mikado*, or *Farm Tools*, or *jackstraws*, with some variety in the shapes and colors of the sticks (see figure 0.1).

We don't remember any official rules anymore, but we could still set up a game. First, we'd need to agree on some rules to play by. Does your turn end if you succeed or only when you fail? Are some sticks more valuable than others, giving more points in the end?

Playing *pick-up sticks* is a physical challenge, where rules are not frequently invoked. Most of the time, everyone would intensely stare at the shaking fingers and try to see if any other sticks were moved. But maybe there would be debate over the exact procedure of dropping the sticks to form the initial pile. We might disagree over whether you can touch a second stick if you don't move it.

Imagine there are some children playing with us. We wouldn't really try to beat the kids, especially if they are very



Figure 0.1

A pile of *Mikado* sticks. There are many different scoring schemes; in one of them, most sticks are worth one point per colorful stripe. The most valuable stick, *Mikado*, has thin diagonal stripes. Photograph: Willi Heidelbach/Pixabay.

young. Maybe we would come up with some secret rules to keep ourselves excited, like “fail all moves while being ahead in the game.” The competition would be tight, and we’d still have a reasonable chance to win.

Perhaps the game would have to end by dinner time. External pressure would leave us with only a few minutes to finish, regardless of the state of the game at that point. Even without rules for irregular termination of the game, whoever had the top score in the end would claim victory.

This hypothetical example is easy to understand, even if you never played *pick-up sticks*. But underneath the apparent simplicity, it contains many rules-related social operations. We verbally agreed on *formal rules* on winning, losing, and scoring before starting to play. We had to adjudicate uncertainty

during play, so we ended up negotiating *social rules*. We encoded *material rules* into the physical sticks by agreeing on their point values. We adopted *internal rules* to provide a handicap when playing with the kids. And finally, the *external regulation* of the surrounding society put an end to the game, creating an unexpected end condition.

This book is an exploration of how all the different kinds of rules serve as building blocks of games. Rules establish spaces of meaning by constraining possibilities and resignifying objects, but all the above types of rules function differently: they are created, altered, broken, and valued differently. In this book, we analyze *what kinds of rules account for the construction of a game and how they work*.

Rules

Over the years, game scholars have produced dozens of conceptualizations trying to answer the basic question: What are games? Games have been understood as activities we engage in that can be actively negotiated by the participants, as systemic or processual artifacts, as forms of play or recreation, as contest, as a form of art. These definitions originate in numerous fields of research, and they were written at different moments in time. However, if these definitions agree on anything, it is the centrality of rules to games: nearly all definitions of games published during the past century view rules as essential to games.¹

Rules are seen as doing the work of ordering, containing, and constituting the game.² Some scholars take a step further and maintain that a game *is* its rules.³ While considerable agreement exists that rules are indeed constitutive of games, there is no wide agreement on the strict formalist position⁴ that a specific game would *equal* its rules.

While defining “game” as a concept has gathered significant attention, much less attention has been paid to what exactly “rules” are. This is the starting point for this book, to make sense of the game rules.

What are rules? Do we only count the written rules as rules, or do verbal agreements count as well? How about house rules? Play instructions? Are implicit and explicit social norms about playing also rules, or do they fall under some other category? Games also feature fiction and representations; do they benefit from being approached as rules?

Do we consider the limits set by the physical reality as rules? While gravity is hard to cheat, many players certainly attempt to overcome the limits set by their bodies at a particular moment in time. Digital game scholars often use the word “rules” to denote the computer code describing a game algorithm or even the electricity running in the transistors of an arcade cabinet. The scholars of nondigital games sometimes use the word to indicate words printed on paper and sometimes the social constructions that direct players’ actions during the game.⁵

This book is devoted to looking at the plurality of games and play—and the rules used in them. We try to include *all* kinds of games, be they digital or not, traditional or consciously designed, spectated or private, multiplayer or single player, rigid or open-ended, instrumental or recreational, and so on. We are interested in games as they are played in practice, where a formal ideal of rules is transformed into physical activity.

While the conceptualization of rules has received less attention in game studies than the conceptualization of games, scholars have put forward several interesting accounts. For philosopher Bernard Suits (1978), rules stipulate both means and ends: what the players are trying to achieve while playing

and what they are allowed to do to reach the goal. The rules are constraints that limit what a player can do; the players can only attempt to reach the ends with “less efficient” means.

It is these formal, explicit rules that we often concentrate on when thinking about game rules, and it is these rules that are meant when scholars and designers say things like “a game is . . . nothing more and nothing less than a set of rules.”⁶ In a sense, the rules that are written down represent an *ideal game*: folklorist Kenneth Goldstein (1971, 172–173) has noted that the rules described by his informants “are rules by which people *should* play rather than the ones by which they *do* play.” One needs to know two sets of rules: “the ideal ones and those by which the ideal rules are applied, misapplied, or subverted.”

Game designer and scholar Stephen Sniderman (1999) has argued that in addition to the formal rules, we have all kinds of unwritten rules, from house rules and etiquette to the general ethos of playing and metarules about how to play.⁷ Furthermore, he argues that we cannot know, let alone state out loud, all the rules of a game. For example, language has its limitations, interpretation leads to infinite regress, and players have individual understandings of rules and when they should be applied.

Rules have received significant attention in the philosophy of sport, where it has been debated if formal rules are enough to understand a game or if an understanding of the prevailing ethos is also needed. For example, sport philosopher Klaus V. Meier (1985) sees formal rules as hierarchical, with some rules being considered more central than others to the “essence” of a sport. Nonbinding “rules,” such as rules of skill—“keep your eye on the ball”—and rules of strategy, are not considered rules.

A practical way of conceiving the rules is to account for them as the mechanisms that *create consensus among players*.

They are the framework that is used to agree on what has happened within the game. This idea, put forward by designers Vincent Baker and Emily Care Boss, emerged in the discussion about creating role-playing games in the Forge tradition. That tradition also recognized the incomplete nature of rules, insofar that it is impossible to create in advance rules to cover all the situations that can emerge in play.⁸

In some traditions of game research, rules are not necessarily conceived as fully binding. In the field of operational gaming, where games are harnessed for goal-oriented purposes such as forecasting, testing, and training, gaming is divided into two categories. In *rigid-rule gaming*, the rules are exactly specified, possibly implemented as a computer program, and not altered after gaming commences, and “every possible combination of players’ decisions is thus exactly defined.”⁹ In *free-form gaming*, the participants supply some of the rules, and they can sometimes even invent more rules while the game is ongoing.

Not all constraints relating to a game need to be shared socially. Sometimes players come up with their own additional rules to make playing more demanding or interesting. They may come up with new goals in games that are open ended, or they may decide to make the game easier and ignore some formal rules.

Rules, laws, and norms obviously also exist outside of games. In social life, rules have a dual nature. As sociologist Thomas Janoski (2005) writes, “Rules are basic to group life, but so is the play of power, the effort to use others to achieve ends even against opposition.” Social and societal rules are created, enforced, and violated by people, and they are interlinked with strategies of domination. Simultaneously, rules order social reality in ways that are not about domination:

Rules that guide people in their everyday behavior, that tell them how to till the fields or work their machines or mate or die, do much more than establish and maintain patterns of hierarchy. They make available to people the wisdom of accumulated experience, and they secure people against the totally unexpected in social encounters. They also make possible the tacit cooperation that underpins social life. In the classical line of sociological thinking from Durkheim to Parsons, rules originate and persist in the effort to solve these problems of collective life. (Janoski 2005)

These “problems of collective life” influence games, for example, through end-user license agreements and parental time limits. Additionally, gameplay is also constrained by the material reality. The precarious pile of sticks and the shaking human hands trying to pick them up are both constraints that limit player action, establishing the *affordances*¹⁰ that make it possible for the player to perform meaningful game actions.

A physical game device, such as an arcade machine, cannot abide by social constructions. Instead of functioning through formal rules, digital games are based on materially embodied rules in their software and hardware. The materiality of digital games has been discussed in game studies, as has their different relationship to rules.¹¹ Indeed, it has been argued that the conceptual category of “game” is not the best or sufficient fit for digital games.¹² Digital game scholar Olli Leino (2010, 275) has proposed that we should not talk about digital game rules but about *conditions*. This is a useful framing also in the sense that just as folklorists gather rules by which people play rather than official formal rules, the digital game players form a conception of what the rules should be, not necessarily matching the conditions that are actually implemented in code.

In this book, we examine the constraints and constructs that shape the games we play. We divide the rules of games into

five broad categories,¹³ based on where the constraints originate and how they are viewed:

Formal rules: the explicit statements that constitute games

Internal rules: the often private rules and goals that players set for themselves

Social rules: the indeterminate shared social and cultural norms and values that guide gameplay

External regulation: the rules and laws enforced by the surrounding society that impact gameplay

Material rules: the material embodiments of rules and the brute circumstances of play

These artificial categorizations are lines drawn in the sand, but we have found them analytically fruitful. All play is culturally situated, and gameplay emerges in the intersection of rules, EULAs, designer intentions, player practices, social norms, and so forth. Game scholar Constance Steinkuehler (2006) calls this the *mangle of play*. This book is a project where we seek to untangle the mangle.¹⁴

Method

The analysis presented in this book emerges from an iterative cycle of reading literature, pondering our firsthand experiences as players, studying written game rules, and analyzing accounts of other people's play.¹⁵ This is combined with examining our preunderstandings, analyzing the coherence and consequences of our theory, and assessing the whole from the point of parts and vice versa.¹⁶ Methodologically, there are three major aspects to the work.

First, there is an element of building a *qualitative metasynthesis*.¹⁷ While this project is situated in the field of *game studies*—the

branch of game scholarship that originated around the turn of the millennium as a reaction to the increasing cultural significance of digital games—our analysis draws from numerous traditions of game scholarship, such as the philosophy of sport, the simulation/gaming tradition, board game studies, and design research.

Having been interested in rules for many years, we have encountered endless cases where the interpretations and implications of rules have refused to fit neatly in any simplistic account. Instead of choosing a single category of games as a starting point, we have studied a wide variety of playful activities. Our project is to build an integrative theoretical framework through reflexive analysis of a diverse variety of games. This book is a journey through the complicated and contradictory terrain of games, illustrating the way our framework renders legible the way rules work in various cases.

Second, our analysis is informed by our personal gaming histories as players, observers, and designers of games. Our histories as avid role-players; as researchers of pervasive games and queer play; as makers of mobile games and art games; as residents of Finland, a country where slot machines are omnipresent; and as survivors of mandatory high school sports no doubt affect our perspective.

Third, to understand rules, we look at rule texts. We look at formal rules, laws about games, play instructions, house rules, game code, license agreements, player reflections, and other rule documents. We have been surprised to note how rarely game scholars *cite* rules, considering how often rules are discussed.

We refer to a wide range of games, because it has been necessary to demonstrate the properties of rules we discuss. Our scope runs from single-player games played inside the player's

mind, like the *car numberplate game*, to grand spectacles, such as the *FIFA World Cup*.

While looking up rules, we have learned, perhaps unsurprisingly, many things about written rules. As professionals, we used to believe that we understood a lot of games fluently. Unfortunately, *we were usually incorrect* in our recollections and assumptions about how the rules work in various games. We had always played some games “wrong.” As rules are not always written to be read but to describe an exact procedure, the shorthand versions we play by are often quite different from what the rules say. Many of our everyday understandings of rules are based on observations of play—but external observation is not a great way to get exact information about rules.

Rules also provide a great deal of hidden insight into how games were designed and why. As people not particularly interested in the sport of *football* (soccer), we were unaware that touching the ball with the hands counts as “handling the ball” only if the act is “deliberate.”¹⁸ Of course, reading the rule makes it obvious that if involuntary touches counted, purposefully trying to hit defenders’ arms with the ball might become a reasonably effective tactic.

Based on the value of going all the way to the written rules, we have decided to cite published rules whenever it has been relevant. We recommend future game scholars to follow this standard. Social rules, program code, and internal rules are obviously harder to cite; here we draw also from accounts and reflections published outside the academia—and from our personal experience.

Understanding Rules through Constructionist Ludology

We call our approach toward games and rules *constructionist ludology*.¹⁹ The word “ludology” was introduced to contemporary

discussion by game scholar Gonzalo Frasca (1999), who defined it as a “discipline that studies game and play activities,” studying games *as games*.²⁰

Ludology studies games from the point of view of games, not as a means to an end or as reduced to a single component such as story, visuals, rules, fiction, performance, sociability, or technology. This framing of ludology is not meant to disregard other ways of studying games but to support approaches such as studying the consequences of games, their instrumental value, and their societal costs. The theoretical project of ludology is intended to provide concepts and instruments for such scholarship. While studying games as art, software, or educational tools can be insightful, ludology focuses on specific properties of games.²¹

Ludology has a complicated relationship with formalism. Formalism is sometimes criticized for ignoring elements such as aesthetics and narratives while focusing narrowly on formal systems.²² In our ludological approach, both the formal system and the representational level are relevant. To argue that the audiovisual surface of a game does not matter would be to argue that the eye candy of an AAA console game is irrelevant—a claim contradicted by the fact that the video games industry has thousands of people working full-time on game graphics. Reducing a complex representation to its underlying rules is to sidestep human meaning-making—and the culture the game is situated in. Indeed, is it possible to understand Cold War-era *chess* without studying the tensions between the East and the West? Games, their creation, and their use are always culturally situated, and this contextual situatedness has an impact.

Our ludology is built on social constructionism, which asserts that meaning and interpretation of reality are socially and culturally produced—social meaning is an intersubjective human construct. We draw on the work of philosopher John R. Searle²³

(see box: “Social constructionism”), who builds on a classification of things as *brute facts* and *social facts*. Brute facts persist even if all humans vanish: there are still mountains on planet Earth after humans. Social facts are construed by meaning-making humans: money and marriage are social facts that only have meaning because we collectively believe so. Searle is a *realist*: the oppositions between biology and culture, as well as mind and body, are misguided, as social reality is ultimately based on the material one.

Searle²⁴ discusses games as *social institutions*. For him, all social institutions are systems of *constitutive rules*, which assign status to objects, establish institutional facts, and regulate activities—but also make them possible. The core of constitutive rules is the formula “X counts as Y in context C.” For example, “Bills issued by the Bureau of Engraving and Printing(X) count as money(Y) in the United States(C).”

Constitutive rules are about assigning *status* to objects and establishing them as *institutional facts*: a given piece of wood counts as a white king in the game of *chess*. By counting as a king, the piece of wood is given *deontic properties*—permissions and obligations—within the context of the game: the piece of wood now has the power to move one step in any direction, as well as the obligation to step out of harm’s way when threatened.²⁵

Game designer Greg Costikyan (2002) has argued that games are structures of *endogenous meaning*, meanings that are relevant only within the system of the game. Costikyan uses the example of *Monopoly* money: it has value only while one is engaged in a game of *Monopoly*. If someone hands you a *Monopoly* bill on the street, it has no meaningful value. When players get invested in gameplay, they produce endogenous meaning, creating attachment to the outcome of a game and motivation to obtain *Monopoly* money (see figure 0.2).



Figure 0.2

Monopoly money X counts as legal tender Y in the context of *Monopoly* C. The car, the dog, and the battleship do not count as pets or means of transport in the context C but as formally identical playing pieces indicating players' positions on the game board. Photograph: Suzy Hazelwood/Pexels.

In playing the game, we form an implicit social contract to pretend that *Monopoly* money is worth something. Because we agree to act as if *Monopoly* money is worth something to us, then it *is* worth something to us—at least for a while. We have an artificial conflict over endogenous money, because it matters to us.

Costikyan's formulation of endogenous meaning can be seen as a case of Searle's institutional facts: all social reality that has no deontic properties outside the context of the game counts as endogenous meaning. As the game ends, the white king loses its deontic powers, although we still recognize the carved piece of wood as a cultural object relating to *chess*. Obviously, we also retain our memories and narrativizations of the game, as well as the ability to construct similar meaning-making contexts elsewhere. The game is a special province of meaning, but it is enveloped in culture and connected to the world around it.

Social Constructionism

“Social constructionism” is a broad umbrella term that covers different approaches. Andy Lock and Tom Strong (2010, 6–10; cf. Burr 1995) have identified five central tenets. First, social constructionism is concerned with meaning and understanding. Second, these meanings begin in social interaction and are shared. Third, this socioculturally embedded meaning-making is specific to times and places. Fourth, this makes social constructionism wary of essentialism (but not antirealist). And fifth, social constructionism is a critical perspective that seeks to reveal the operation of the social world and the obscured political power structures in it—with an intent to trigger change for something more just.

Although social constructionism did not really come about until the latter part of the twentieth century, Lock and Strong (2010, 12–28) track its intellectual foundations to Giambattista Vico, an Italian historian and philosopher, and his magnum opus *Scienza Nuova* published in 1725. Most social constructionists build on the academic discourse initiated by Peter L. Berger and Thomas Luckmann in their 1966 book *The Social Construction of Reality*. Their goal was to bridge the dual character of society, making sense of how objective facts and subjective meanings form our everyday reality.

Analytical philosopher John R. Searle (2010, 5) sorted out many foundational issues that Berger and Luckmann explicitly stepped over and left to the philosophers. Searle describes his work as *social ontology* and calls for a philosophy of society; this would not be a philosophy of social sciences but a philosophy for them.

Searle rejects the social constructionist label, defending his thinking against antirealist forms of “strong” social constructionism (Searle 1995, 190–194; cf. Hacking 1999/2009, 24). He also rejects the political and transformative aspirations of social constructionism (Lock and Strong 2010; also Hacking 1999/2009, 6–14). For the purposes of this book, we treat Searle as part of social constructionism regardless of his protestations—just noting that his social constructionism is realist and of the “weak” variety.

The rules constituting the game of *chess* not only restrict the ways of moving a king but also make the whole idea of a king possible, making it meaningful to “move” a “king.” Institutions allow us to construct further social reality: the institution of *chess* not only provides the king with the deontic power of moving one step in any direction but also makes it possible for constructions such as the “Sicilian Defense” to exist.

In our approach, the social process of playing a game takes precedence over the artifact of a game. It explains, for example, why the game of *chess* is not worn out by repeated use. Although a *chess* set may succumb to wear and tear, the institution of *chess* persists as long as people remember it.

While it is trivial that games are social constructions, it is relevant to understand how games are constructed.²⁶ Understanding the praxis of constructing specific games with rules is the core mission of this book. By clearly explicating the constructions relating to play and games, it becomes easier to see those brute facts that exist independent of construction, such as the mammalian biological tendency to play (see box: “Playfulness and play”). Searlean realist social constructionism can be used to highlight what is *not* socially constructed.

Constructionist ludology is a pragmatically motivated analytic framework. The aim is to understand games and play on their own terms as socially constructed phenomena while maintaining the realist connections to social context, brute reality, and psychological phenomena. From the perspective of constructionist ludology, games are social institutions constituted by their rules. They typically display endogenously meaningful properties, such as resources, conflict, goals, and outcomes. Gameplay is always psychological, socially constructed, culturally situated, and rooted in brute reality.

For the argument of this book, this is a necessary approach: rules, as we have categorized them, exist on all these levels,

and they cannot be negotiated without understanding play on all these levels.

Structure of This Book

The following five chapters are each devoted to discussing one of our categories of rules:

“Formal rules” is a chapter for the most traditional understanding of rules. It is also the longest chapter. Here we discuss rules as explicitly designed procedures and operations that constitute gameplay. When a game rulebook tells you to roll a die and have the highest-scoring player go first, we are talking about formal rules. Sometimes the formal algorithm of a board game can be distilled in a quantifiable procedure, but often formal rules are ambiguous and may require arbitration to function properly.

“Internal rules” are the rules the players set for themselves. Role-players do this all the time, but there are other examples as well: perhaps you decide to play through a digital game without looking at guides and walkthroughs.

“Social rules” are the social and cultural norms and values that guide our gameplay, although they are often unwritten, and it is difficult to precisely determine whether they are being followed. These rules are difficult to explicate specifically, but you will surely notice other players coughing if you take fifteen minutes to consider your move in a board game.

“External regulation” is a chapter on how the games are, de facto, shaped not only by their rules but also by rules of the surrounding society. Although freedom of play is nominally “isolated” and “protected” by a magic circle of play, the magic circle only exists at the leave of society. Sometimes parents

place limits on the screen time of their children, and sometimes a brutal tackle in the *ice hockey* rink lands a player in a court of law.

“Material rules” are not rules at all in a social sense. As a physical device, an arcade machine cannot abide by any social constructions whatsoever. However, an arcade machine is a material embodiment of a set of formal rules designed to create interesting play experiences. The most extreme aspect of materiality is the brute circumstances of play: *pick-up sticks* requires gravity, and *boxing* assumes that hitting a player in the head will eventually make them lose consciousness.

It appears to us that for many game scholars, the “default case” of games is either a digital game or a board game. In this book, the default seems to shift between chapters as we foreground different aspects of gameness and game rules. We write about formal rules and social rules primarily through the prisms of board games and sports. For internal rules, the preeminent examples are digital games and role-playing games. Esports and persistent virtual worlds and the games they host are the focal point in relation to external regulation. Finally, digital games and physical sports provide the framework for material rules. While the order of priority of the various rule types seems to vary depending on the game under scrutiny, we believe that this cross-examination of different types of games yields insight on all kinds of games.

In the concluding chapter, we review the project of the book in light of the preceding discussion and restate our understanding of rules. We also consider some further complications, such as breaking rules, and the concept of metagaming in relation to our understanding of the mangle of different sorts of rules and gameplay praxis.

Playfulness and Play

The social institutions of games ultimately rest on our biological impetus to play—a biological brute fact. For analytical purposes, we divide play into two components: the mental state of *playfulness* and the activity of *play*. We use “playfulness” to describe the mental state where actions are being carried out for their own sake. Psychologist Michael J. Apter (1991) writes about *telic* and *paratelic metamotivational states*, mental states *about* motivation. Actions carried out in a telic state are work-like and aim to complete exogenous goals, while actions carried out in a paratelic state are their own reward. Humans are able to shift between these two attitudes during the same activity, but stereotypically, we do some things for fun and pleasure in the doing and others because we simply want to get something done.

We use “play” to refer to an action or an activity. It is visible and can be carried out alone or socially shared. Playing is rooted in the playful mind-set, but as humans are aware that they are playing, it is influenced by social and cultural constructions. It is possible to engage in play without being in a playful mind-set.

Play can be further divided into different types. The three types widespread in mammals are *locomotor play* (play with one’s body), *object play* (playing with a physical or conceptual thing), and *social play* (play with others), although these forms are often simultaneously present in an activity.²⁷ Humans also engage in pretend play (playing “as if”), rule-based play (play according to formal rules), and sociodramatic play (i.e., more complex pretend play such as role-play). There is a continuum from play to games, marked by an increase in complexity of social construction and rules, as well as a decrease in the need for a phenomenological experience of playfulness. As play becomes more rule bound and structured, it starts drifting toward becoming an institutional fact. Once the rules are clear

and stable, an institutional fact has come about. This continuum from free playing to structured playing is a way to conceptualize the connection between the two.

As constructionist ludology is realist, all social and institutional facts ultimately need a material basis. Play is ingrained in humans and many other animals on a brute biological level. While the exact nature of this biological foundation can be debated, the widespread presence of playful behavior cannot be denied.

1 Formal Rules

We begin our journey through the various categories of rules from the archetypal category of formal rules. Sometimes they are portrayed as abstract logical and mathematical entities dictating how play must proceed. In this chapter, we reframe formal rules to our framework of Searlean realism: formal rules are not Platonic ideals or mathematical abstractions but socially constructed articulations of constraints and goals. They exist on physical paper and in human mind only because someone created them in some process. They are clear to see in the institutional settings such as tournaments, but they are also present in everyday casual games.

Rules creation is often discussed in an idealized process where a board game designer works to come up with ideas for game rules, evaluates them through playtests and calculations, and writes down the rulesets that work best. Over the course of numerous iterations, the dynamics of play emerging from the rules begins to align with design goals, or perhaps the design goals evolve to match discoveries made in the process. The game is formed through iterations of trial and error. The designer creates the constitutive rules of the game, establishing the social meanings of the various pieces and procedures, and thus creates a system for play.

In this idealized process, the designer seeks to write down *intended rules*, creating a set of *codified rules*. The codified rules are a set of procedures that describe how the play proceeds, establishing which actions are allowed, possible, and forbidden in the game. Usually, the designer tries to write them in a clear, coherent, and unambiguous manner, ensuring that there are no contradictions, often including pictures and diagrams for clarification. When contradictions are discovered, they are considered design errors and rectified with clarifications and rulings.

Although formal rules usually aspire toward exact precision, they are not written in *formal language*. Unlike mathematical formulas and computer algorithms, rule text is not based on specific and exact meaning.¹

In theory, learning to play a new game starts from learning its rules. The player opens the box to study the rulebook, internalizing the codified rules and producing their own set of *interpreted rules*. The process of how the rules were created is no longer important; the rules, as codified and interpreted, are what matters. If all goes well, the interpreted rules are a close match with intended rules, and the play proceeds as the designer intended.

These ideal processes rarely take place as written above. The designer may craft conflicting or unintelligible rules. Often, before the rules are published, an editor, someone specializing in written language, edits the rules to be easier to understand by the players. A player may misunderstand the codified rules or the intention behind them. They may also play with an older or a newer version of rules or come up with their own additional rules. Even so, as shorthand, we can discuss the intended, codified, and interpreted rules together as the *formal rules* of the game. Intended and interpreted rules only exist in

the minds of the designers and players, and codified rules only exist on a medium of communication such as paper.

In practice, learning rules is often a messy process. When we learned to play *poker* in Finland in the 1980s, we did not read rules (see figure 1.1). Instead, we were taught by older kids and relatives: First you deal everyone five cards. Then you get to replace cards once, twice, or maybe even three times, as long as you only replace four, or sometimes five, cards at a time.² We always ended up arguing over how to rank hands.



Figure 1.1

Card games tend to spread as oral tradition, rather than through written rulesets. This is a likely reason why there are so many variants of card games: *poker* alone has three main variants (*draw*, *stud*, and *shared card poker*), and the *Pogat*³ website lists some 340 different *poker* rulesets. In the picture, four men are playing *poker* at Myttäälä experimental station, Finland, in 1931. It is not known which rules they followed. Photograph: Finnish Heritage Agency.

In those *poker* games, most of the rules only existed in verbal negotiations and in our heads, but over time, we learned to write down some of the most often contested rules, such as the order of the hands. Probably no two of our *poker* sessions were formally identical, but they did have plenty of formal rules. We defined and redefined them in a capricious practice far from the idealized process of iterative game design.

In this chapter, we provide an account of the formal rules, what they are, how they relate to each other, how ambiguity arises that requires arbitration, how they set up the game and the player's goals, and how the rules extend beyond the moment of core gameplay.

Formal Foundations

Formal rules are explicit. They are the constitutive building blocks, which create the social institution of the game, giving meaning to the various pieces and procedures of play. In Searle's terms, the board game *Monopoly* is constituted by its rules, and it enables *Monopoly* money to exist and have the property of being a legal tender for various payments.

Codified rules are often *algorithmic*. Algorithmic rules describe operations and procedures that relate sequentially to each other, describing the whole process of play. For example, board game rules are almost always algorithmic; simply follow the procedure turn after turn, and the game progresses all the way to the end (see figure 1.2).

However, formal rulesets need not be algorithmic. One example of a simple formal game was described by Jules Verne in his 1872 novel *Around the World in Eighty Days*. As Phileas Fogg wagers that he can "make the tour of the world in eighty days or less," the formal rules of the wager barely define the



Figure 1.2

The oldest surviving document of game rules is this Babylonian cuneiform tablet, describing the rules of *The Royal Game of Ur* and giving instruction for its use in fortune-telling. The tablet was written by Itti-Marduk-balatu in 177–176 BCE. The game itself is significantly older than this rule tablet.

Although formal rules may seem clear and exact, they cannot be understood without context. Assyriologist Irving Finkel (2007) has reconstructed the rules of *The Royal Game of Ur* based on ancient documents and artifacts, but although his rules match all available evidence, his account only tells us a hypothesis on how the game might have been played:

It is an interesting point, of course, why such a tablet should have been written in Mesopotamia. Very few cuneiform inscriptions have been identified that seem to answer “modern” questions, such as “How do you play the Royal Game of Ur?” It is, in a way, misleading to describe [this tablet] simply as giving rules. The scribe did not set out to provide the information that would allow a modern reader to grasp the play of an unfamiliar game from the written word alone. Everybody knew perfectly well how the traditional game was played *normally*, so it is likely that the details preserved for us are in some way unusual, perhaps reflecting a more complex game, or one with some subtle difference. (Finkel 2007)

The idea of a rule book, the way we conceptualize it today, is thus younger than the tablet. Photograph: British Museum.

victory condition and its consequences. No procedures or constraints are defined, so it is entirely up to the protagonist to decide how to win the wager—and there is nothing in the rules to stop his adversaries from impeding the attempt either.⁴

The *situational formal rules* are the shared rules players play with. They constitute that particular instance of a game. Since human communication is imperfect, and misunderstanding, miscommunications, and mischief about rules are common, it is helpful to recognize an authority that has final say about rules in such instances, providing *authoritative formal rules*. Often the game designer, a certified referee, or the owner of the intellectual property is invested with such power, but sometimes it is the most knowledgeable gamer who serves as the arbiter of rule conflicts. Sometimes the oldest kid on the sandbox codifies the rules in a verbal set of instructions, forgetting half of the rules in the process.

It is also possible that there are other institutions overseeing the rules, like in the case of *chess*; while the rules originate in tradition, international federations, rather than individual designers, have been in charge of the codification. Before the era of efficient mass communication, games existed with traditional and local formal rules, but in modern times, a process of standardization often takes place, and formal rules are harmonized across the globe to allow international competition (see Guttman 1978).

Despite the existence of a central rule authority, players' own *house rules* are often explicitly codified to determine how the game proceeds. In *Monopoly*, there is a widespread house rule stipulating that fees paid to the bank are put in the middle of the board, and whomever arrives in the Free Parking square gets to collect them from the bank.⁵ Explicit and codified house rules are formal rules of the games people actually play.

Game scholars Katie Salen Tekinbaş and Eric Zimmerman (2004, 122–123) characterize (formal) rules of games with six qualities. Rules *limit player action*; playing a game is following rules and doing nothing else. Rules are *explicit and unambiguous*, and a game would collapse if there were ambiguities. Rules are *shared by all players*, and there are no rules not shared by all players. Rules are *fixed*, and even if they are changed in play in some games, they are changed according to procedures determined by earlier rules. Rules are *binding*, and as players agree to play a game, they contain their own authority. Finally, rules are *repeatable* and can be enacted in multiple sequential games. Salen Tekinbaş and Zimmerman consider these properties a rather “classical” way of understanding games: although almost all games follow these qualities, they can be easily broken through experimental game design. From the perspective of constructionist ludology, this classical way is an ideal situation, and practice is more complicated.

Comprehensive formal game rules cannot be reliably inferred by just observing play. Many rules stay latent for the entire duration of gameplay—they only exist to prevent something that players would otherwise do, but in practice, their existence prevents them from becoming visible. Competent *poker* players do not test the consequences of going through the discard pile in order to learn about the hands other players folded, as *rabbit hunting* is strictly forbidden in the rules.⁶ Thus, it is not easy for an outside observer to figure out the consequences of such an act—at least by observing competent play.

Finally, in practice, we cannot ensure that players have a shared understanding of the codified rules: indeed, it is common that players have very different sets of interpreted rules. Contradictions can exist as long as all players play with *equifinal* rules: even if players understand the rules differently, it does

not cause problems as long as their interpretations produce indistinguishable consequences. If players discover contradictions while playing, the *equifinality conflict* has to be resolved before the play can proceed.⁷

It does not matter where the explicitly encoded formal rules come from. Whether the rules were developed by the original game designer, provided by a modifier a decade after the publication of a game, or house rules agreed created on the spot by the players, we consider them formal rules. Our focus is not on the creation of the rules or the rules as an ideal but on the constraints that guide the play of games. If we agree that in our game of *poker*, every player who folds their hand must down a shot of whisky, that is then a formal rule—encoded in the verbal exchange.

The Formalist Ideal

For a formalist, the formal rules are everything there is to the essential form of a game. If the board and the tokens of a game are changed, while the formal content of rules remains unchanged, the game is still the same game. For game scholar David Myers,⁸ a game identical to *tic-tac-toe* does not even require a board:

Imagine, for instance, another game (let's call it T3) consisting of nine tiles, labeled a1, a2, a3, b1, b2, b3, c1, c2, and c3. In the game of T3, two players alternate picking tiles, each attempting to select tiles that will create an a-b-c sequence, a 1-2-3 sequence, or both. Further imagine a set of rules for T3 that would eliminate from selection any sequences in T3 (e.g., "a1-c2-b3" or "a3-b1-c1") that would not conform to the winning conditions of TTT [tic-tac-toe]. At this point, the game of T3, without a crosshatch playing field and without any Xs or Os, is formally identical to TTT. We might, at

this point, say that the rules of TTT are more easily understood or, perhaps, more “elegant” than the rules of T3, but both sets of rules point or refer to the same essential form. (Myers 2010, 32; cf. Salen Tekinbaş and Zimmerman 2004, 120–128)

In this approach, a game is conceived only as a sum of its rules. The visual presentation, the fiction of the game, and even the physical form of the game are all secondary to the essential algorithmic core of the game. Changing a single rule establishes an entirely new game. Salen Tekinbaş and Zimmerman (2004, 130) divide rules into three groups: they use the term *operational rules* to refer to the written-out, explicit rules of a game—what we here discuss as formal rules. Their second category is *constitutive rules*.⁹ With this concept, they refer to the underlying formal structures that the operational rules imply, the mathematical logic, so to speak. This is Myers’s “essential form.” The idea is that the same constitutive rules can be expressed in a number of different ways on the level of operational rules. Their third category is called *implicit rules*, and this is a catch-all category for house rules, contextual cues, norms about playing, and other hard-to-explicate rules that still govern actual play. In this book, what Salen Tekinbaş and Zimmerman understand as implicit rules are discussed under a number of categories, most clearly as social rules.

Salen Tekinbaş and Zimmerman (2004, 134) ultimately reject this formalism and go on to argue that the constitutive and operation rules “work in concert to generate the formal ‘meaning’ of a game. There is no ‘essence’ of a game wrapped up in its logical, constitutive core.”¹⁰ Even so, the argument presented by formalism is interesting. According to it, if you only played *Monopoly* with the aforementioned Free Parking jackpot rule, you have never played *Monopoly* at all.

The same idea has also been expressed in relation to sports:

The formalist account of sport . . . says that the rules of sport are its definition and, therefore, intentional rules violations are either not playing the game and, logically, eliminating the possibility of winning; playing a different game than prescribed by the formal rules and, thus, potentially voiding the possibility of contest; or playing a defective instance of the game pre-scribed by the rules. From the formalist position, intentional rules violations are not acceptable because of either violation of a contestant's agreement or some form of cheating. (Fraleigh 2003)

At the first glance, the formalist position might appear unnecessarily strict. Many games have dozens or hundreds of rules. Surely just one more cannot change the game enough to produce an entirely new game? For instance, rule 4.1 of the *Laws of Chess* stipulates that "each move must be played with one hand only."¹¹ While the rule adds clarity and legibility to the act of playing and has a clear impact on the performance of chess, would *chess* become an entirely new game if that rule was changed to require each move to be played with both hands?

Rules are not made equal. Sometimes a seemingly insignificant rule change *can* completely change the dynamics of an entire game. For instance, the Free Parking jackpot house rule has a surprising consequence that may affect the play experience much more than the few nice jackpots: as a consequence of that rule, little money permanently leaves the game economy, and the duration of the game session can increase significantly.

In some games, the players do not even know all the rules. Sometimes there are simply too many rules: ask a *chess* players what they think will happen if a wrong outcome is recorded on a scoresheet after a game, and they may not know that even an incorrect result "shall stand, unless the arbiter decides otherwise."¹² Sometimes games have rules for different team

roles, as in *Formula One* motorsport: the regulations by the governing body FIA are more than 400 pages long¹³ and cover everything from ignition system specifications to procedures for electing the president of the cost cap adjudication panel.

Then again, sometimes rules are unknown to players simply because they are uncovered in play. In the board game *Risk Legacy*, some rules come in sealed envelopes that are intended to remain unknown until they are unsealed in play. New formal rules join into constituting the game as the players learn of them. And sometimes, fully understanding the rules marks the end of interest in a game by a player (see box: “Play and exploration”).

Allowing ourselves some idealism, we can say that *typically*, the formal rules are determined before the play commences, remain unchanged throughout the play, and dictate all the actions that make sense in a given point of play. Even so, much happens in play that is not dictated by formal rules, as will be discussed in the other chapters of this book.

In principle, there is a cultural norm, a social rule, that rules of the game cannot be changed while the game is ongoing. But at the same time, it is trivial to conceive of situations where players make a verbal agreement to change the rules. For instance, players can play *golf* for a while and then agree to quit after eight holes and count the score. Whether the outcome is *golf* is a matter of debate, but it is simple to change rules while playing.

Sometimes the power to change the formal rules rests with the rule authority, and sometimes rules assigning that authority can be among the most important constitutive rules. In reality television game shows like *Big Brother*, the very idea is that the producers dictate arbitrary rules, and the players try to survive under the shifting circumstances.

Play and Exploration

In some ways, playing board games is about learning the rules. When people play board games recreationally, they learn the rules—or enough of the rules to start playing—but they do not necessarily understand the system the rules set up before playing the game. Just as the designers need to playtest a game to see how the rules interact to create a game, the players also need time to understand the system. For some players, it seems, this exploration of a new ruleset is the best part of playing. Once they fully understand the rule system and its implications, a board game loses some of its hold, and they move on to a new game. Obviously, there are players for whom achieving mastery in a specific game like *chess*, *football*, or *League of Legends* is a key goal, but there are also players who like picking up new games—and new rule systems.

For example, game designer and scholar Richard Bartle (1996, 2003) discusses players whose main attraction is exploration of the game world and its systems:

The ultimate delight for Explorers is increasing their knowledge about the way the virtual world works. Their joy is in discovery. They seek out the new. (Bartle 2003)

Understanding how the virtual worlds work is the key to these players. Similarly, players who are interested in *theory-crafting*, reverse engineering the algorithms that determine how a digital game works, are also exploring the game and attempting to understand its system nature.⁴⁵

The idea that play and exploration are closely connected is a familiar one to ethologists and child psychologists. For an external observer of a child or an animal entering a new space with numerous interesting artifacts, it can be difficult to say when exploration of a new space turns into play in said space. While conceptually exploration is stimulus dominated and play is organism dominated, some researchers have argued that exploration and play should be approached as a unity.⁴⁶

This has numerous implications. First, in some ways, the rules of a game do not only enable play but are also game content for exploration play. Second, this means that in some ways, the rules are akin to the narrative in a digital game (cf. Juul 2005). Once the story of a game is known, the game has been played through, exhausted. But for some players, a game is done once they fully understand the rules. Third, play begins already before a player understands how rules operate. While in theory, the formal rules constitute a game, in practice, the players' current interpretation of the rules constitutes the game. Fourth, approaching games simply through the ideology of mastery⁴⁷ produces a one-sided view, whereas many games are created first and foremost to support a *virgin play* experience.

The formal rules of competitive games do not conform with the formalist ideal of having one clear set of rules to follow: a sport event may have game rules, tournament rules, technical specifications, rules for appeals, rules for organizer conduct, and rules for audience, and all these rule systems may have different systems for amendment. The highly bureaucratic rulesets can consist of dozens of different documents.

In some games, the rules change from one game instance to the next—according to rules. *Magic: The Gathering* is a collectable card game with thousands of different cards that have been released since 1993, many of which have unique and unprecedented effects on gameplay. For instance, the card Panglacial Wurm¹⁴ has the following ability: “While you’re searching your library [your deck], you may play Panglacial Wurm from your library” (see figure 1.3). If no one brings a card with that power in play, the entire concept of playing a monster while searching your deck is absent. Did the essential form of *Magic: The Gathering* change when the casting while searching



Figure 1.3

Panglacial Wurm can be played while you are searching cards from your deck. This requires you to use some other card that allows you to search something from your deck. *Gatherer*, the online *Magic: The Gathering* card database, presents several rulings relating to this card. For example, you can play multiple Panglacial Wurms during one search, and this ability only works while you are searching your own library. Photograph: Jori-Minna Hiltula.

the library was introduced—and did it also change for the players who have never seen a Panglacial Wurm?

Peter Suber's *Nomic: A Game of Self-Amendment* from 1982 starts with twenty-nine rules, but the central mechanic of the game is that players can propose additions and changes to rules. As stipulated in rule 104:

All rule-changes proposed in the proper way shall be voted on. They will be adopted if and only if they receive the required number of votes.

Initially, all rule changes must be adopted unanimously, and the game has victory conditions tied to gaining points, but the point of the game is that *all* of its rules can be changed in play, including the rules on changing rules.

Nomic models the way legal systems function. Suber (1990) writes, “While self-amendment appears to be an esoteric feature of law, capturing it in a game creates a remarkably complete microcosm of a functional legal system.” *Nomic* offers one possibility to solving the dilemma of whether the changing of one rule creates a new game.¹⁵ As long as the right procedure has been followed, the game remains the same. However, what this procedure is for each game varies.

Play Instructions

Idealistically, one might think that studying formal rules would be the most common way of learning to play a game, but in practice, prospective players usually have someone teach them how to play. *Play instructions* are an imprecise and situational shorthand version of the formal rules, where the focus is on player activities: a player could be instructed to not touch the ball with their hands, but the consequences of doing so are not relevant for starting to play.

Good play instructions are easy to understand, give a sense of what the playing is like, focus on the experience, and are often communicated through examples rather than abstractions. Where formal rules are about constituting the game activity, play instructions are about enabling play and explaining why the game is fun or meaningful.

Play instructions can take many forms. In board games, there is a veteran player explaining the rules, both before the game and as need arises. In sports, a teacher has the kids run after the ball, gradually adding elements that eventually constitute a version of *football*. In larps, the organizers run pregame workshops where rules and interactions are rehearsed. In digital games, tutorials instruct players to play the game, often without explaining any mathematical systems underpinning the basic playing skills. It is also common to learn by spectating play, especially if accompanied by commentary.

We can look at the cooperative board game *Arkham Horror Third Edition* for various types of play instructions. The game comes with two rule books: one containing all the formal rules and one containing play instructions. The *Rules Reference* booklet outlines the distinction:

This document is the definitive source for all *Arkham Horror Third Edition* rules. This document is not intended to teach new players how to play the game. Players who wish to learn how to play for the first time should read the Learn to Play booklet instead. As questions arise during the game, players should refer to this document.¹⁶

Indeed, the *Rules Reference* booklet is difficult to understand if one does not *already know* how the game is played. The rule 001 sets the tone:

If a component's text directly contradicts these rules, the component takes precedence. The component overrides only the rule that applies to that specific situation.

The *Learn to Play* booklet strikes a very different mood, opening with a vignette that situates the game in the Roaring Twenties:

Yet a dark shadow grows in the city of Arkham. Alien entities known as Ancient Ones lurk in the emptiness beyond space and time, writhing at the thresholds between worlds.¹⁷

The booklet then continues with an overview, explanation of components, setup, and the process of playing the game. Indeed, it is not unlike the usual printed rules in board games—except that the booklet explicitly states that it omits some rules to make learning the game easier. Having two books is very useful: *Learn to Play* is organized in a way that facilitates learning, and *Rules Reference* is organized in a way that makes it easy to solve issues during the game.

Even so, just as the formal rules of *poker* or *football* do not explain what is fun about them, the *Learn to Play* booklet does not specify that part of the fun of *Arkham Horror* is ending up being eaten by monsters.

Despite these official documents, many players choose to start learning from video tutorials on the internet. Tom and Wes of the *Never Bored Gaming*¹⁸ channel connect the game to the literary tradition that inspired it, explaining the building blocks of Lovecraftian genre: the players are investigators trying to stop an Elder God from invading the world. They manage player expectations and underline that in horror games, being able to enjoy failure is a big part of the experience: “like other Arkham games, this game is so hard . . . this is a co-op game you are going to lose.” They underline that the slowly revealed story renders the game tokens meaningful and that the game is “role-playing-esque,” with characters that one can step into that have statistics and gear. *Arkham Horror* takes commitment and is “ultra nerdy, extremely thematic.” According to Tom and Wes, the game is not for people who want to consistently win

in games. While it is possible to play *Arkham Horror* without this kind of framing, these kinds of play instructions help a prospective player understand how the activity set up by the rules can be enjoyed or how others have found it meaningful.

Ambiguity and Contextuality of Formal Rules

The discourse on formal rules sometimes seems to assume that formal rules are clear mathematical operations with explicit outcomes, implying what Salen Tekinbaş and Zimmerman discuss as the underlying constitutive rules. Rule 3.3 of the *Laws of Chess*, which stipulates that “the rook may move to any square along the file or the rank on which it stands,” is precisely this kind of a rule: combined with some other rules, it explicitly defines the fourteen squares that the rook can enter, and determining the legality of an attempt to move a rook is a straightforward task.

Formal rules can also be ambiguous. Consider this example on how to judge the style of *ski jumping* during the flight part of the jump, rule 431.2.1 by the governing body FIS:

The Flight

Jumpers must raise their flight trajectory by moving as follows:

- making a bold and aggressive move at takeoff
- proceeding rapidly and smoothly to achieve an optimal flight position
- and initiating preparations for landing at the right moment.

Judging criteria's

- Actively utilisation of the air pressure
- Combination of body and ski to build an entire flying system
- Getting into a optimal and stable body position with left and right sides symmetrically positioned skis, legs and arms.
- The legs have to be fully stretched

(FIS 2020, *sic*)¹⁹

In the case of *ski jumping*, some of the style criteria are very ambiguous while others are not. It is perhaps feasible to objectively evaluate whether a jumper's legs are fully stretched, but whether a jumper's body and ski build an entire flying system is ambiguous to say the least.

Although the judging criteria presented in the rules are vague, the practice of refereeing in *ski jumping* is policed with a heavy apparatus of rules comprising licensing systems, ongoing training, experience requirements, and penalty point systems for infractions.²⁰ Judges who deviate too much from other judges in their judgments can be disqualified from judging certain competitions and so forth. The true judging criteria of *ski jumping* are not the ones printed in the competition rules but are formed in the consensus of judging work.

Even when rules are written with formal clarity in mind, the question arises: Are they exhaustive? For instance, the rules of *Monopoly*²¹ list many things players are allowed to do, such as buying houses, bidding in auctions, and mortgaging properties. They also list many things players are not allowed to do, such as staying in Jail after successfully rolling to exit or transferring mortgaged properties to other players. *Monopoly* rules forbid lending money (or, originally, "scrip"), but do the rules formally allow players to *give* money to each other?

A proficient rules lawyer can easily mount both arguments. A player wanting to give money could argue that since the game simulates the real estate market and rules do not forbid it, it just makes sense to be able to take the realistically possible action of gifting. Or that since lending is explicitly forbidden and gifting is not mentioned, gifting must be therefore allowed. Or that forbidding it is pointless, because two players can anyway trade some property back and forth in order to transfer money. At the same time, a player against gifting could argue that all possible actions are listed in the rules, and

others are not allowed. Or that gifting would allow players to circumvent the prohibition of lending. Or that as lending is forbidden, surely gifting must be as well.

From the perspective of formal rules, this is complicated. Some game rules, like *Magic: The Gathering Comprehensive Rules*, are obviously written with the purpose of being *exhaustive*; everything that is not allowed is forbidden. In some other games, such as the open-ended *scavenger hunts* where players run around the town collecting a predetermined list of objects, the rules might only specify some forbidden actions, leaving all the other affordances of the world open for players.

Leaving rules vague and open-ended can be a conscious design strategy that fosters creativity, playfulness, and self-reflection. One example of this is the party game *B.U.T.T.O.N.*, in which players must obey vague instructions of the video game and complete simple physical tasks to win. Unlike in most console games, in *B.U.T.T.O.N.*, players are instructed to put their controllers down, and the competition is to see who gets to their controller first to push their designated button.

The game tells players to do everything from push-ups to closing their eyes, but the only thing the digital game actually measures is when and whether the players push their buttons. Everything else is left up to the players. Game designer and scholar Douglas Wilson (2011) analyzes his work as follows:

The game's defining characteristic is the "incompleteness" of its underlying system, in the sense that it is so obviously up to the players themselves to interpret and enforce the rules. *B.U.T.T.O.N.* is not a game played with motion control technology. The computer has no way of refereeing whether you took exactly six steps back, or if you did indeed spin around five times. That the players are collectively responsible for policing themselves only serves to exacerbate the ambiguity of the rules. . . . Beyond the poorly elaborated instructions telling the players what they should do, the

game has very little to say on the issue of what the players should not do. . . . One of the few aspects of the game that is actually codified into computer logic is the win/lose conditions. Nevertheless, in designing the game we have tried to introduce some confusion wherever possible.

The comprehensive rules of *Magic: The Gathering*, the simulation-oriented rules of *Monopoly*, and the intentionally vague rules of *B.U.T.T.O.N.* demonstrate how the Searlean function of constituting the institution of a game can be accomplished through different semantics. If we conceive play as “free movement within a more rigid structure” (Salen Tekinbaş and Zimmerman 2004), all these strategies of formal rules can serve as that rigid structure.

Sometimes rules cannot be interpreted without taking the cultural context of the game instance into account. Rule 11.1 of the *Laws of Chess* stipulates that “the players shall take no action that will bring the game of chess into disrepute.” Even if the wording of that rule stays unchanged, its implications are subject to change over time with the surrounding society.

The interpretation of ambiguous rules has little to do with logical operations and much more to do with the understanding of cultural context, presumed intent, long-term consequences, earlier precedents, principles that are thought to prevail elsewhere in the rules, and so on. Thus, rule 11.1 should perhaps rather be studied and interpreted with a jurisprudential apparatus (e.g., Dworkin 1986) than by means of formal logic or computer science.²² As is stated in the preface of *Laws of Chess*,

The Laws of Chess cannot cover all possible situations that may arise during a game, nor can they regulate all administrative questions. Where cases are not precisely regulated by an Article of the Laws, it should be possible to reach a correct decision by studying analogous situations which are discussed in the Laws. The Laws assume that arbiters have the necessary competence, sound

judgement and absolute objectivity. Too detailed a rule might deprive the arbiter of his freedom of judgement and thus prevent him from finding the solution to a problem dictated by fairness, logic and special factors.²³

Despite having been elevated to the status of “formal” rules, it is the case that the combination of intended, codified, and interpreted rules is frequently far vaguer than implied by the precise language of the written rules.

Game designer Stephen Sniderman (1999) has discussed these kinds of vague formal rules as *self-defeating rules*. Such rules call attention to themselves as an imprecise tool. His chosen example is time limits for moves: How long can a player take to consider their move? If there is a formal rule, as Sniderman proposes, such as “Players will make their moves within a reasonable amount of time,” nothing has been solved, since we do not know what “reasonable” means. Instead, we have only called attention to this limitation. Vague rules are often attempts at codifying social norms and rules about playing, and they are not a problem if players are prosocial and the stakes of playing are not too high. However, in tournaments and professional settings, the rules need to be less vague—and, for example, in *chess*, strict time limits do exist.

A more foundational challenge with formal rules has been identified by philosopher Ludwig Wittgenstein (1953/1958). He has outlined the rule-following paradox, which states that a rule does not state what counts as following a rule; to interpret rules, more rules are needed. According to game scholar Jonne Arjoranta (2015, 46) infinite regression can be avoided easily: “Distinguishing between following a rule correctly and making a mistake is not a logical but a practical question. Rule following is not determined in isolation but as a social practice.” Rules require arbitration.

Arbitration

When rules are in conflict, the game can grind to a halt. In practice, this is solved with *arbitration*, a process in which the various participants of a game figure out how to proceed. Sometimes arbitration is a casual and quick process between players who try to figure out how to proceed after a perceived conflict. For instance, the formal rules of the miniature war game *Warhammer 40,000* declare the following:

The Most Important Rule

In a game as detailed and wide-ranging as Warhammer 40,000, there may be times when you are not sure exactly how to resolve a situation that has come up during play. When this happens, have a quick chat with your opponent and apply the solution that makes the most sense to both of you (or seems the most fun!). If no single solution presents itself, you and your opponent should roll off, and whoever rolls highest gets to choose what happens. Then you can get on with the fighting!²⁴

In other games, arbitration is a highly formal high-stakes process with trained and supervised outsider referees passing down a judgment. Here are some typical cases requiring arbitration:

Conflicting formal rules. Idealistically, it is always considered a game design mistake when codified rules are in conflict with each other, but as anyone playing board games knows, even published games require rule clarifications and errata. The world record of rule clarification might be held by *Magic: The Gathering*, which has had to address the combinatorial dynamics of the thousands of cards that have been published.

Conflict between the formal rules and the ethos of the game. In the philosophy of sport, there is a debate between formalists and ethos arguments. While formalists argue that the rules of a sport are its definition, there are also scholars who make

the ethos argument: “The social context of sport must be accounted for in our understanding of what sport is” (Fraleigh 2003). Not only is interpretation of rules is required, but even some socially acceptable rule violation is part of the game.²⁵

Perceived conflict of codified rules and inferred design principles. The generally accepted convention of tabletop role-playing games is that the improvement of characters’ attributes should contribute to success chances when the character uses those attributes. *Deadlands*, however, has complicated dice mechanics that sometimes lead to the point where a nimbler character may have a smaller chance of success in skill checks than a less nimble one.²⁶ This is clearly not a design intent but an inadvertent consequence of the complex system.

Managing the difference of messy reality and the formal rule system. When games have rules based on the reality outside the rule system, it is often necessary to arbitrate conflicts between the rules and the reality. A typical case is the referee making a call whether a ball crossed a line or not.

Negotiating external social reality with the rule system. Some games require negotiation with the external social reality, such as amateur *Scrabble*, where abbreviations cannot be played on the board as legitimate words, but it is often unclear when an acronym becomes a word in its own right. Is “laser” accepted? Is a dictionary used as an external resource? The tournament play of *Scrabble* has eliminated this problem by including every single acceptable word into its official dictionaries. The rules no longer need to have a stance on abbreviations, as they are simply not included in the official dictionaries:

The Official Tournament & Club Word List, 2016 Edition, published by Merriam-Webster, Inc., contains **all** acceptable words.²⁷

Intentionally ambiguous codification. Most sports rules have ambiguous clauses for good sportsmanship and fair play. These

extremely vague, self-defeating rules are interpreted by referees in a largely situational manner. One notable instance of this kind of arbitration happened in the London 2012 Summer Olympics, where eight *badminton* players were disqualified for being guilty of “not using best efforts” to win a *match*, because they perceived losing to be the optimal strategy for placing well in the *tournament*.²⁸

Games designed to be arbitrated. Bernard Suits (1978) discussed some sports as *athletic performances*, instead of games, where players aspire toward ideals of performative excellence instead of being bound by constitutive rules (cf. Meier 1988/1995).²⁹ For instance, *ski jumping*, discussed above, has a built-in requirement for arbitration, as judges need to interpret how the performance fits the aesthetic criteria of the sport.

Arbitration can even be made into a subgame; for instance, NFL *American football* has formal rules on how and when coaches can demand instant replay reviews, including rewards and penalties based on the outcomes of the reviews.

Each team is permitted two challenges that will initiate Instant Replay reviews:

- (a) The Head Coach can initiate a challenge by throwing a red flag onto the field of play before the next legal snap or kick. . . .
- (d) Each challenge requires an available team timeout. A team that is out of timeouts, or has used all its available challenges, may not attempt to initiate a challenge. . . .
- (e) If a challenge is unsuccessful, the team will be charged a timeout.
- (f) A team will be permitted a third challenge if it is successful on both of its challenges.³⁰

Under the NFL rules, demanding arbitration is an expenditure that consumes resources formally controlled by the head coach. This system also makes the coach-participant essentially a player of the game, trying to beat the referees in their own game for advantage in the match.

Even games without clearly stipulated and explicated arbitration roles, power, and structures sometimes require arbitration. In such cases, the most common forms of arbitration include arguing over rules, rereading written rules, searching for errata in the internet, and, like in *Warhammer 40,000* above, simply rolling a die to settle the affair. Arbitration proceeds until a sufficiently satisfactory ruling is created for the game to proceed—or if an agreement cannot be found, the game may be abandoned.

Casual rules arbitration is often based on *precedent*. “Last time we played *Scrabble*, we decided that ‘scuba’ is a valid word, so now we will stick to it.” When a precedent in personal play history does not exist, players even look for unofficial FAQs from websites such as BoardGameGeek to discover a precedent, as *any* impartial precedent is considered more fair than deciding a solution on the spot.

Another arbitration principle is the purported *spirit* of the rules. Board games do not usually provide any detailed specification for the dice used in the game, but we still assume that using weighted dice would go against the rules. Similarly, sport philosophers Chad Carlson and John Gleaves (2011) suggest considering the *parentage* of the rule—the reason why it presumably exists—as a way of interpreting the rules.

Very close to the spirit of the rules is the principle of good *sportspersonship*: most games with cards do not forbid taking a casual peek when other players hold their cards sloppily, but even when it might be formally acceptable, it might be socially condemnable.

Sports philosopher J. S. Russell (1999) argues against the common argument “rules are all an umpire has to work with,” an argument that sports referees should only apply the rules, without a need to use their own discretion. He likens this

approach to *legal formalism*, an argument that law is nothing but a body of rules, and judges should only look at those rules when adjudicating cases. Instead, Russell argues that to solve hard cases fairly, referees must apply some set of legal principles in their work. He suggests the four principles of adjudication as a starting point.

1. Rules should be interpreted in such a manner that the excellences embodied in achieving the lusory goal of the game are not undermined but are maintained and fostered. . . .
2. Rules should be interpreted to achieve an appropriate competitive balance. . . .
3. Rules should be interpreted according to principles of fair play and sportsmanship. . . .
4. Rules should be interpreted to preserve the good conduct of games.

Essentially, Russell's principles can be paraphrased to mean that if the athletes are competing in running, the rules should be interpreted in a way that allows the competition to be resolved through the act of running, in a way where all athletes get to demonstrate their ability at running, fairly, and in a way that allows the competition to proceed in an orderly and "appropriately civilized" manner.

Although there is no consensus over the correct philosophical principles that should underlie rules arbitration, it is clear that arbitration is occasionally required. And as Russell argues, there will always be hard cases that cannot be solved through legal formalism alone.

Constitutive and Regulative Formal Rules

Searle (1969, 1995) distinguishes constitutive and regulative rules from each other, based on whether they regulate

antecedently existing activities or constitute new activities.³¹ As discussed earlier, Searle discusses the constitution of new institutions and activities on an extremely fundamental level—all our social institutions from *chess* to nation-states are constituted through constitutive rules.

Bernard Suits (1978) argues that games are constituted by rules that prohibit activities:

To play a game is to attempt to achieve a specific state of affairs [preludory goal] using only means permitted by rules [lusory means], where the rules prohibit use of more efficient in favour of less efficient means [constitutive rules], and where the rules are accepted just because they make possible such activity [lusory attitude]. I also offer the following simpler and, so to speak, more portable version of the above: playing a game is the voluntary attempt to overcome unnecessary obstacles. (Suits 1978, 54–55, bracketed texts in original)

Thus, following Searle and Suits,³² it is not regulative but constitutive that footballers must not touch the ball with their hands: handling the ball X counts as a foul Y in the context of *football C*.³³ The contemporary style of *football* cannot exist antecedently of some variation of that rule.³⁴ But did *chess* exist even before someone came up with the rule that pieces need to be moved using one hand only?³⁵

If we view games as social institutions constituted by their explicit rules, where restricting the activity through rules is central, there are no regulative but only constitutive rules. For example, we can look at the sport of the *100-m dash*, where rule 17.3 includes the following:

17.3 In all races:

17.3.1 run in lanes, each athlete shall keep within their allocated lane from start to finish.³⁶

This rule is constitutive for the dash, since it is essential for the sport that runners stay in their lanes. If this rule did not

exist, the sport might need some other rules determining the limits on acceptable tackling and harassment of other runners. Even though running exists antecedently of the World Athletics³⁷ codifying it into the sport of *100 m*, the certain specifically defined act of running becomes an institution through its constitutive rules.

If we accept the above rule as a constitutive rule for the dash, it is difficult to argue that the following rule 5.2, in the same book, would not be a constitutive rule for the game.

Athletes may compete barefoot or with footwear on one or both feet. The purpose of shoes for competition is to give protection and stability to the feet and a firm grip on the ground. They must not give athletes any unfair assistance or advantage. Any type of shoe must be reasonably available to all in the spirit of the universality of athletics. To meet that requirement, any shoe that is first introduced after 30 April 2020 may not be used in competition unless and until it has been available for purchase by any athlete on the open retail market (i.e. either in store or online) for at least four months prior to that competition. Any shoe that does not meet this requirement is deemed a prototype and may not be used in competition.³⁸

It is not simple to determine whether the rules on shoes are seen as regulative or constitutive: on the one hand, track and field sports do exist antecedently of need to regulate high-tech prototype footwear, but on the other hand, a formalist could argue that the *100-m* dash only exists as a system because rule 5.2 on acceptable shoes is in the rulebook.³⁹

In sports studies, strategic fouling, “an intentional violation of rules designed to secure a tactical advantage” (Simon, Torres, and Hager 2015, 22), has been debated extensively. For example, Suits (1978, 52) considers taking a penalty in *ice hockey* to be a tactically acceptable decision, even as it incurs a penalty dictated through the formal rules, but sports philosopher

Warren Fraleigh (2003) considers intentional rules violations as an unacceptable violation of the contestant's agreement. Using the apparatus of this book, intentional violations of formal rules can still be escalated under the jurisdiction of other rules, such as social rules and external regulation.

Sports philosopher Cesar R. Torres (2000) does find value in the dichotomy of constitutive and regulative rules within games. He differentiates the rule types through the consequences of violation: play cannot continue after a violation of constitutive rules, and he uses the concept of regulative rules to describe the procedures about restoration of play after violation and penalties that are levied on violators to discourage violation. Torres uses this distinction to separate games into the *constitutive part*, "those periods during which no interruption occurs and consequently no need to invoke penalties arises," and the *regulative part*, characterized by interruptions, penalties, and processes where the constitutive play is resumed.

Torres's use of regulative rules for games is not without its complications. He himself points out that "Searle's definition of regulative rules does not fit games precisely" and concedes that his regulative rules have "quasi-constitutive connotations and functions" as they direct play. However, Torres argues that his distinction is useful in describing distinct legislative needs related to gameplaying. It is certainly true that many rules he categorizes as regulative historically do address needs to regulate antecedently existing activities. For instance, the swimming federation FINA has added a regulation banning nontextile swimwear,⁴⁰ probably to prevent, in advance, the sport from changing with technological progress.

Sports philosopher Klaus V. Meier (1985) has established the category of *auxiliary rules* for the rules in sport that have "nothing whatsoever to do with the essence of sport."

Auxiliary rules cover rules pertaining to participants' safety; empirical rules about who gets to participate, such as age and weight classifications; and all sorts of "social and political" rules, from outfit regulations to doping rules.

It can be argued that in historically more stable games, it is easier to distinguish the central lusory project, the essence of the game. In the process of a bureaucratic sportification, for instance, the ethos of a game becomes visible in a way that may make it easier to determine whether penalty shots fall within the "constitutive part" of the game or whether equipment rules are "auxiliary." Bureaucracy makes intent behind rule decisions more transparent. However, the lines between regulative, constitutive, and auxiliary rules remain debatable even if the models proposed by Torres and Meier have clear practical value. This is particularly visible in games that are newer, less stable, or contested. Most games are not historically stable. They are whimsical, casual, short-lived, playful, and arbitrary, making it harder to distinguish the "regulative part" of the game.

The distinction between constitutive and regulative rules implies a historical dimension in the rules. "Antecedently existing activities" can be read as an earlier set of rules, which are regulated by the later additions. However, the formal rules do not contain information about their historical development, and it can be impossible to tell when a particular rule has developed. The *Laws of Chess* stipulate that

if it is evident that a player has such a device [electronic device] on their person in the playing venue, the player shall lose the game. The opponent shall win.⁴¹

This rule is a recent one. However, the rule that if a player touches a piece, they must move that piece is mentioned already in *Repetición de Amores y Arte de Ajedrez con 101 Juegos de Partido*, the oldest surviving printed book on chess from 1497,

thus predating rules that would seem more essential, such as *castling*. Even if a formalist account were to acknowledge historical development, it would not solve this issue between constitution and regulation.

Making a difference between the constitutive and regulatory rules implies that there is a core essence in games that is created by constitutive rules and a layer of less important fluff that is then the realm of regulatory rules. Who gets to decide what is central and peripheral—and, by extension, what is meaningful in games? From a formalist point of view, all rules are equally essential, and we can make no distinction between constitutive and regulatory rules, while ethos-driven argumentation can prioritize specific parts of the game rules as clearly central to a game.

Formal Goals

Games have many kinds of goals. Formal goals and objectives are explicated in written rules as formal rules. We will return to social goals and player-created goals in the later chapters, but even on the formal level, multiple goal types exist.

Prelusory goal, a concept introduced by Suits (1978, 41), holds that prior to the commencement of a game, the player adopts the goal of bringing about a *specific achievable state of affairs*. Suits's example is "crossing the finishing line before other contestants." Within the game, this may be called winning, but this goal exists outside of the game. In written rules, this is usually discussed as an objective or a victory condition. *Victory conditions* are the most profound type of formal goal within the game: some formal rules dictate that achieving a certain state of affairs counts as winning in the context of game. In the dice game *Yahtzee*, the sole victory condition is that the

player who has more points than any other player is declared the winner.

After the scores are tallied, the player with the highest Grand Total wins the game!⁴²

It is important to note that there is no formal rule stating anything about placing second in *Yahtzee*. From the perspective of formal rules, it makes no difference whether you almost won or had zero points. In fact, if two players are tied for the highest Grand Total, the formal rules offer no solution on who wins—you could even argue that there is no winner in that case, and *all* participants end up in an equal position. We will return to this example later, when we discuss how outcomes are valorized within the domain of social rules.

Goals other than victory conditions can be difficult to identify in formal rules, or they can be missing altogether. For example, the role-playing game *Dungeons & Dragons* does not even have a formal victory condition. The design is full of *sub-goals*, intermediate steps on the path toward a bigger goal, that reward the player on the path toward bigger goals. Clearing a dungeon provides players with loot, and reaching a higher experience level grants characters higher attributes and new powers. Game designers create subgoals to incentivize players toward desired behaviors, and that is why they are useful for understanding the practice of play, even though they are not always denoted as goals in the formal rule text.

Sometimes completing player-perceived and designer-intended subgoals can be detrimental to the pursuit of victory. In the single-player game *Star Control 2*, the player is both pressed for time and presented with dozens of optional quests to complete. If the player takes their time to complete all the side quests to gather power and pursue all the storylines, it is

likely that they will run out of time to complete the main quest of the game. Introducing challenge-increasing secondary goals to a competitive team game is sometimes considered bad game design, because one player's attempt to complete a secondary goal might jeopardize the success of the whole team.

As a formal concept, *end condition* is tightly connected to victory condition: when an end condition is met, the game ends. The most common end conditions stipulate that the game ends after a set period of time and that the game ends when someone reaches the victory condition. Open-ended games do not have end conditions, and it is rare to see games with a victory condition but without an end condition—players tend to feel that playing becomes pointless when someone has already won. Open-ended games with victory conditions are only typical in digital games, where the player is allowed to explore the world and finish secondary goals after completing the main quest.

Beginning and Ending

What is the jurisdiction of game rules, when are they in effect? A simpler understanding of the temporality of a game would assert that a game has formal rules defining a beginning and an end, and the game takes place between those two moments in time. With some degree of approximation, that is true for most games: the casual game of *chess* commences when the first move is made and concludes when an end condition, such as a checkmate, is met.

In high-stakes games, there might be various processes and rituals preceding the start. For example, *Laws of Chess*⁴³ cover both the initial position of the pieces and the initial placement of the chessboard itself. The starting of the games is only implied in the Basic Rules of Play: “The player with

the light-coloured pieces (White) makes the first move.” The Competition Rules also weigh in with more detail and a reference to the chessclock: “At the time determined for the start of the game White’s clock is started.”

A more careful analysis reveals that the “core game” period is surrounded by numerous preparatory stages governed by formal rules of the game: even in the most casual game of *chess*, someone sets up the board and figures out who plays white before the first piece is moved. It is important to note that the game rules are starting to take hold even during these preparatory stages: the player, or the official, setting up the board must already comply with the rules of *chess* to successfully do so.

After the core game ends and the outcome is known, there are often even more rules-governed steps. For instance, in *chess*, the players may have to register the outcomes officially: “At the conclusion of the game both players shall indicate the result of the game by signing both scoresheets.”

Reading rules carefully frequently reveals that the hold of the rules captures a larger temporal period than one would think. In the final chapter, we will show how the various rules of a *football* match are in effect for years before and after the game.

Conclusions

Formal rules are the explicit rules by which a game is played. When looking at real instances of playing games, these formal rules include not only the officially sanctioned rules but also the other explicit rules, such as house rules agreed on the spot. While formal rules constitute games, players can and often do play games without knowing all the rules, following vague and incomplete play instructions. This is obvious to any player who interprets, checks out, or negotiates the rules while playing. As

Sniderman (1999) argues, “We can go on using (and revering) any system even if we acknowledge that it is as artificial, arbitrary, challengeable, and ‘incomplete’ as any game.”

The comprehensiveness and volume of formal rules grows with sportification and professionalization. As there is more at stake, and as referees can be assumed to rigorously study the rules and the judging criteria, they approach the precision of digital game algorithms. For example, the *Magic: The Gathering Comprehensive Rules*⁴⁴ are currently 250 pages long. All possible combinations need to be considered, and past rulings and a case law become integrated into the formal rules. While such detailed, procedural formal rules approach the precision of digital game algorithms, they are not as explicit as formal language.

Formal rules often extend well beyond the temporal core game that we conceive of as the runtime of playing the game: rules can govern what happens before play commences and also what happens after it.

In the practice of play, formal rules require interpretation, negotiation, and arbitration. Consequently, the “essence” of a game, as described through its constitutive rules, is subject to interpretation. Games change over time, they can vary from one game instance to the next, and sometimes the rules even change during play. Formal game rules are a moving target.

A purely formalist understanding of a game is a solid foundation for accounting for the construction of a game, but it is in no way enough to render legible the constraints that shape how a game is played. In the upcoming chapters, this will become increasingly obvious.

2 Internal Rules

From a formal point of view, to follow rules is to play a game. However, not all play within games is playing the game according to its formal rules. Players often play with the rules, toy with the limitations, and have fun with and within the game in a way that cannot be rendered legible in just relation to the formal rules. A player can overtly transgress the rules of the game or the social norms around it, and they can break out of the game. However, players also play creatively within the constraints of the game—often covertly.

Players can create and adopt additional rules and goals for their own playing. These unsaid and private rules, which are relevant only to a single player, are *internal rules*.¹ Players adopt them to modulate their gameplay experience. For example, a player might try to complete a digital game in record time or to win a board game using an outlandish strategy. In the previous chapter, we discussed players often having differing interpretations of the rules, but with internal rules, this differentiation goes a step further, as players intentionally add rules to the game they are playing.

The idea of internal rules is tied to a specific conceptualization of “game.” If games are seen as procedural artifacts that exist independent of players, then additional rules brought

in by players seem irrelevant. But the situation changes if we approach games as negotiated activities: for play designer Bernard De Koven (1978, 3–4), games are “social fictions, like works of art, which exist only as long as they are continuously created.” The rules are up for discussion; they are in the process of becoming through the act of playing, and thus the internal rules enacted by the players cannot be ignored.

The obvious objection to internal rules is that private rules cannot be rules, making the argument that rules must be shared: one can *think* that one is following rules, but that does not necessarily make it so. If there is no shared social context where the rules are public and no objective quality to them, then there can be no correct or incorrect following of rules (Bateman 2011, 96–97²). Our conceptualization of internal rules is specifically based on their *private* nature. In practice, players do adopt additional constraints and additional goals that shape their gameplay, and we find it useful and fruitful to conceive of these player-created constraints and goals as rules even if they are not shared.

In this chapter, we look at such structures: *rules and goals players set for themselves*. By their private nature, these rules are ephemeral. They are sometimes vague, but they can also be just as precise as codified formal rules. They can be just as binding as formal rules are, and they can even take precedence over all the other rule types. Internal rules can be egotistic and solipsistic, putting primacy to one’s own personal experience, but they can also be fiercely prosocial. Players’ ideas of what kind of play is beautiful, elegant, or meaningful can guide playing even if articulating aesthetic ideals as “rules” can be difficult. Internal rules can define the player’s experience of the game.

Setting Rules for Oneself

Neil Dansey, Brett Stevens, and Roger Eglin (2009) discuss four classes of rules, based on whether they are externally defined, internally defined, externally validated, and internally validated. *Externally defined* rules are what we call formal rules. A rule is *externally validated* when some element of the game system other than the player—such as a referee, a fellow player, or a computer—determines whether it has been correctly followed.

A rule is *internally defined* when the player establishes it privately for themselves to follow. One example of such a rule is deciding to play through the original *Deus Ex* in a nonlethal manner. The game, which combines elements from the first-person shooters and single-player role-playing games, creates an interesting environment where it is meaningful to explore the possibility of completing the game without killing any other characters. The original *Deus Ex* neither suggested such a play style to the player nor validated its completion, and success even required exploiting some bugs in the game.³ Such a rule would be both internally defined and *internally validated* as the player needs to decide on their own whether they have succeeded in the task.

Games can have externally defined (i.e., formal) rules that require internal validation, just as it is possible to have internally defined rules that require external validation. Dansey, Stevens, and Eglin (2009) present a thought experiment *Game C* with the following rules:

Your score starts at 50 points.

The theme is “conflict”—every time you perceive some form of “conflict,” you lose 1 point.

When you lose a point, you have one minute of immunity before you can lose another point.

If your score reaches zero before 48 hours have passed, you lose the game.

Otherwise, you win.

These rules are about interpretation; the definition of “conflict” is intentionally vague, and the rules force the player to make determinations. Indeed, these reflective interpretations are the core experience in *Game C*. An external observer could not accurately keep tally of points, because the internal validator is the ultimate adjudicator. Honesty and good sportsmanship are obviously also important; the player is the only one who can know if cheating takes place.

Although *Game C* is a theoretical exercise, games of internal definition and validation are also played outside of game philosophy class. One widely spread activity includes the numerous variations of the *car numberplate game*, for which even the Wikipedia⁴ provides several different rule variations. The one we remember from our childhood was based on spotting the three numbers on Finnish license plates in consecutive order: the game started when you spotted a plate with number 1 and theoretically finished years later when you spotted a plate with the highest possible number, 999. This is how we passed time in the car before smartphones were invented.

Killer: The Game of Assassination is an example of the “circle of death” games, where players murder each other amid everyday life.⁵ The players seek to murder each other with playful weapons, such as carrots representing daggers and alarm clocks standing in for explosives. These games feature externally defined goals that are internally validated: when a player finds a deadly plastic spider from her shoe a few seconds too late, there is typically no one else around to witness the successful murder. The game must rely on the good sportsmanship of all players, or it will become unplayable.

From a video gamers' perspective, typical internal rules relate to reloading the game. In many computer games, the player is able to save and reload the game easily at any point. The question is what internal limitations the player places on themselves: strategy games can become trivial if you reload the game after every unsuccessful random check. As one player wrote in a Reddit post,

I had no idea what permadeath was when I grew up, but neither did most of the designers making the games I played, it seems. So for whatever reason I started making up my own rules for when I could save or not. Just save-attempt-restore (commonly known as save scumming) of course makes (almost?) any game easy and removes any sense of suspense. Even young me realized that. And while not doing that costs a lot of time from having to replay, I have mostly kept it up to this day, although I have allowed myself to cheat slightly more due to not having as much free time for true gaming now.⁶

In most games, there is no validation for following any of these rules—although games such as *NetHack* and *XCOM* have implemented technical solutions for permanent death—and the only person witnessing the honorable conduct of the player is the player themselves. Other typical areas for internal rules in single-player games include use of walkthroughs and strategy guides, exploitation of perceived glitches, and use of strategies and features considered to be overpowered.

Video game streamers often create *challenge runs* of video games by establishing internal rules to increase the difficulty and then subjecting their performances to external validation by the audience. Can you beat *Elden Ring* without attacking?⁷ Can you beat *Elden Ring* using a mod to replace every monster with the hardest boss in the game?⁸

Although the rules are internally defined, you can still sometimes see them being renegotiated with the audience while the

run is ongoing. For instance, in popular streamer PewDiePie's attempt to beat *Elden Ring* without dying, he had to quit and reload the game mid-fight to escape certain death. While he was doing so, he explained to his viewers,

Okay don't judge me. Listen, this is not a rule-break! I can quit at him. I try to not do it cause it basically makes enemies not aggro on you. People use it all the time in speedruns and stuff like that. It's a little lame, but fuck I'm not restarting [after an] hour because he randomly grabs me okay? Lame? Yes. Rule-break? No. Zero-death? Yes!

...

I know this one wasn't perfect and I did use some cheap strategies here and there. I know there will be some people that will have problems, but technically this is my own challenge, so I get to make my own rules.⁹

The example of challenge runs also demonstrates how internally defined rules with a highly public external validation approach constitutive formal rules. In Searlean terms: does quitting to avoid immediate death *X* count as dying *Y* in the context *C* of a zero-death run of *Elden Ring*? There is no consensus on how to adjudicate the issue, but in his own channel, there is no authority that could contest PewDiePie's own decision. In principle, the audience can vote with their feet if they dislike his conduct, but minor lapses in sports-personship are unlikely to cost him many viewers.

When it comes to internal goals in single-player games, *character customization* is a frequent incentive used by game designers. Merely providing the player with opportunities to wear different kinds of outfits brings this internal goal into play, but in *Grand Theft Auto 3: San Andreas*, the players can even grind at the gym to keep their avatars slim and muscular. Similarly, building and furnishing a home has become a frequent side goal in single-player games, popular even when it provides no game-play benefits. Indeed, while aesthetic or representational aspects

of the gaming equipment or game characters can seem inconsequential from the point of formal rules, they matter a great deal to the players and can constitute elaborate internal rules.

Open-ended digital games like *The Sims* or *Minecraft* are powered by internal goals almost by definition. The games can certainly make all kinds of suggestions, but it is the player who chooses which goals to pursue. Formal and material rules cannot properly account for play in open-world games or play with character customization. This has historically led to these games being considered of lesser importance or even as edge cases of the category of “games.”

Digital service games often do not explicate their final *end-game goals*. After the player has reached the maximum level and has consumed most of the content the game offers, it is up to the player to figure out what to do next. Designers often have ideas on what players should do, but they are left for the player to discover, creating carefully crafted and strongly implied yet still internal rules (see figure 2.1). For instance, the farming game *Hay Day* never tells you to build the biggest farm possible. One could argue that it is a part of game design craftsmanship to guide the players gently toward these long-term goals through the mechanics and dynamics of the game.

Players often adopt these internal goals because they feel natural and self-evident. *Collecting* is a great example: while some games are explicit about it—*Gotta Catch ‘Em All*—other games just provide affordances for it, from collectable objects to beautiful views displaying your collection, to get the players in the mood of collecting things. The impulse to collect is so powerful that many games are entirely built on the implicitly presented internal goal of gathering a full collection.

In practice, collecting frequently falls between the internally and externally defined internal goals; designers are often



Figure 2.1

Friends & Dragons never states that the goal of the game would be to clear *all* the Campaign chapters, but the visual user interface design intentionally implies this with crown icons, progress bars, and percentages and by graying out locked chapters. Campaign progress is incentivized through incremental subgoals rewarded in the quest interface. This basic design works: most players adopt Campaign progress as an internal goal early on. However, the game is intentionally designed to divert players' attention to other goals before the Campaign is over: players are nudged to build powerful teams, to compete on leaderboards, and to clear time-limited event dungeons. The intent is that players will not run out of goals even if they get stuck in the Campaign or actually manage to finish it. As Markus is the lead game designer of *Friends & Dragons*, we can for once discuss design intent with certainty. Screen capture: Markus Montola.

doing their best to entice players to adopt this goal without saying it out loud. The rules of *Dragon Dice*¹⁰ do not mention collecting or suggest that players start a collection—except that in the setup of the game, the player is expected to “Select thirty health-worth of units, two dragons, and two terrains from your collection.” Collecting is such a standard playful activity that it can be simply implied. Of course, the game is also marketed as a “collectible dice game.”

In digital action-adventure game *Lego Marvel Super Heroes*, as the player progresses, they get a large set of heroes and villains with different powers to play with. These characters are rewards of completing tasks, and there is a screen with empty slots clearly communicating that some characters are still missing. While gathering all characters is not an explicit goal, it is very clearly suggested and encouraged. Collecting is an example of a ludeme (see box: “Ludemes and game mechanics”) that is so strong that it need not be explicitly spelled out in order for the players to adopt it.¹¹

When players add internal rules to their gameplay, they are personalizing the experience and working as designers of their own experiences. Just as constraints are seen as driving creativity in design (e.g., Bogost 2016), players can bring variety to their gameplaying by adopting additional constraints. Thus, we can conceive of the formal rules of the game as a sandbox in which players play around with limitations, but they can also add internal constraints to keep the game engaging.

Often the adopted internal rules are familiar from other games. Ludemes travel from one game to another not only during the design phase but also in how they are played in practice. Playing *Deus Ex* as a pacifist was an internal goal for some players, but later it became a common externally validated achievement, in games such as *Mirror's Edge*.

Game scholar Doruk Balcı (2022) has developed the practice of coming up with new internal rules and goals into a research method. He questions the idea that rules should be considered preset and approached in a formalist fashion. Instead, he favors play-centric approaches that investigate the process of forming play practices with the *introspective rulebook method*. Balcı develops and exemplifies this method by playing single-player digital sandbox survival simulator *Rimworld*, which does not have any explicit formal goals, although survival is heavily implied.

After playing (and playing with) *Rimworld* for a while, Balcı writes down the rules he has played by, such as “Keep everyone alive” and “Keep everyone’s morale at least normal.” Once he has identified the rules he has been using in the sandbox game, he can start changing them.¹² For example, he decided to kill all but one colonist to see how that would change the game—and then adopted a new goal, building a spaceship with just that one colonist. For Balcı, the introspective rulebook method has clear benefits in research use as it can help uncover assumptions and cultural values that have been embedded in the game—but also help the researcher explore new ways of playing. For players, this method can unlock new meaningful ways of playing:

A conscious and reflective understanding of rules carries expansive potentials for forming personally meaningful play-practices and finding well-played games. The ambiguous nature of playing with rules builds the foundation for a process in which players can form their own meaning. A conscious reflection and experimentation of rules can allow for us to gain a deeper sense of agency and affect the values that are present in play. It can allow us to negotiate what a game is on our own terms and help co-design the experience. This sense of affecting the game on a structural level can often lead into play experiences where we might feel highly connected to our

games because the games are partially created by us. In my experience in Rimworld, each time I started trying out a new rule it felt like not only I was playing a new game, but also trying to figure out if this new play-practice worked or not. (Balci 2022)

Many open-ended digital games lack explicit rules and goals, providing players with only a sandbox for internal rules and implicit optional goals like collecting. Becoming aware of these rules makes it possible to change them, enabling one to write a new introspective rulebook.

From a game design point of view, it is possible to create room for player creativity in a way that nudges the players in a certain direction. What to a player might seem like creativity might be intended by the design. However, if a game invites these kinds of *predictable results of player creativity*, it can also invite unpredictable internal rules, some of which go against the grain of the intended design.

First-Person Audience

Who is the gameplay a performance *for*? Play generally has three kinds of immediate audiences: first, *external audiences* comprise people focused on spectating the play. They have always been important for games; from gladiator games to live streams of video games, audiences have a long history in games. While they can affect the play by celebrating a goal or tipping a streamer, they are not generally considered participants.

The second category is *fellow players*, who watch the game unfold while being a part of it. In party games, such as *chardades*, the whole purpose of the game is to amuse other players, but in all games of skill, the fellow players can appreciate the virtuosity of a great player.

Finally, the third audience of play is the *player themselves*. Philosopher Mikhail Bakhtin described the experience of imaginative play as follows:

Playing, from the standpoint of the players themselves, does not presuppose any spectator (situated outside their playing) *for whom* the whole of the event of a life imaged through play would be actually performed; in fact, play *images* nothing—it merely *imagines*. The boy who plays a robber chieftain experiences his own life (the life of a robber chieftain) from within himself: he looks through the eyes of a robber chieftain at another boy who is playing a passing traveler; his horizon is that of the robber chieftain he is playing. And the same is true of his fellow players. (Bakhtin 1919/1990, 74–75)

For Bakhtin, the player is the audience of play; the boy plays a robber chieftain, because he wants to experience being a robber chieftain. For Bakhtin, the difference of play and art is in the external audience, in spectators who can admire the play in an “aesthetically active manner.”

All games are performances for the *first-person audience*,¹³ performances for the player-experencer themselves, and at least sometimes such performances can aspire to being a form of art.¹⁴ In contemporary times, single-player video games are all playing aids allowing the player to create valuable performances for themselves, but as every child knows, play performances for self only can also be improvised from scratch. One does not require witnesses to get the rush of a hole-in-one in *golf*.

The first-person audience is the only audience that can truly experience the play performance: just as a spectator of dance cannot feel the experience of dancing, a spectator of *chess* can never reach the intense focus of a master player analyzing the board and realizing the fateful consequences of past decisions. As sports philosopher Leslie Howe (2017) discusses, the spectator experience of a sport is often experienced in the form of

narratives that can be in wild contradiction with the experiential reality of play itself.

For the digital games industry, the importance of the first-person audience is so significant that thousands of playtesters are recruited to play for hundreds of hours of video and board games, so that their feedback can be compiled for the purposes of creating an improved, homogeneous experience for future first-person audiences.

Of course, not all games are optimized for the enjoyment of the first-person audience. Reality television game shows can be unfair, dull, and embarrassing, as long as they can attract players with extrinsic rewards. Similarly, games for learning, military exercises, economical simulations, and other games with external goals can afford to be arduous and unexciting, as they are played for instrumental purposes. Even in games that have not been designed to please the first-person audience, the experiencer is there and the player certainly can try to make the experience of play more interesting by adding internal rules and goals.

Story Worlds, Interpretation, and Diegesis

Playing games requires interpretation. The players of *football* or *poker* spend a great deal of effort trying to understand what specifically is going on in the game. But some games contain enough fiction to set up a whole *story world*. Games such as *XCOM* and *Dungeons & Dragons* contain enough information about the fiction, allowing the players to create a wholistic understanding of what is real in the imagined world of the game.

As the interpretation of the fictional world is subjective, players of games with fictional rules often commit to an internal rule of trying to maintain the coherence of the game

world. Role-playing games with their shared narrative worlds make this internal construction of an interpretation of a world particularly visible.

In multiplayer games, there is a strong cultural norm that a story world should make sense, but the drive toward coherence might even be biologically foundational for the human species.

This subjective interpretation of a coherent imaginary world built through the play process has been called a *diegesis*. Originally in classic Greek, *diegesis* meant “telling” or “recounting” and was used in contrast to *mimesis* (i.e., “showing”), but in film studies, it denotes the story world presented on the silver screen: “In a narrative film, the world of the film’s story. The diegesis includes events that are presumed to have occurred and actions and spaces not shown onscreen” (Bordwell and Thompson 1986, 502). The usual example given is that music in a film is diegetic if it exists in the world of the film and the characters can hear it, and it is extradiegetic if only the viewer can hear it. In role-playing game studies, diegesis is constructed by endogenous meaning of the game world, “what is real within the fiction.” As every player has their own interpretation of what is real, it often makes more sense to talk in plural about *diegeses* (see Montola 2012, 67).¹⁵

Players playing together will usually make a serious effort to weave together a coherent narrative, even if there are obvious gaps and discontinuities or technological problems.¹⁶ Despite best efforts, players’ diegeses can never be uniform: even in the best cases, interpretations have subtle differences. In order for the shared play to continue, the players’ diegeses must be just as equifinal as the formal rules of the game: if equifinality conflicts are detected, they usually need to be arbitrated for the play to proceed.

In tabletop role-playing games, arbitration is easy as all participants are present: if participants have differing readings of the architecture of a dungeon, these readings are relatively easy to harmonize once the equifinality conflict is detected. In larger and more distributed games, this can be harder. Game scholar Torill Mortensen's (2003) study of text-based role-playing in multiuser dungeons (MUDs) provides a wonderful quotation from a player:

OK, I'll use the mer-folk as an example. They are a great example from *Dragon Realms*: The mer-folk were about 7 races, because they were given a paragraph of information. They were never defined in that paragraph, physically. Ever. They breathe water, they breathe air, that's all we know. We don't know what colour they are, we don't know what their skin looks like, we don't know what their eyes look like, we don't even know if they have a basic humanoid structure. We assume they do, because in fantasy races everybody looks basically like people. And this was taken with a wild amount of diversity. There were people who came on that had—they had tails always, and legs. They were basically people with tails. There were people who came on and said they didn't have tails because it didn't matter, they looked like fish. They had gills, they had big bulbous eyes, and they had blue skin, the whole nine yards. . . . There were the other classes of people who said they look just like people and act like people. Then there was another group of people who said that they looked just like on Disney's Splash. They have legs on ground and tails in the water. It's amazing that a game can go on for a year and a half without this sort of things being defined. . . . Because there were descriptions of serpent-folk in the game with legs and there were descriptions of them without. That was—you know—it was very confusing. It was rather important. (Mortensen 2003, 206)

In a distributed game, it is clearly possible to continue playing even if an equifinality conflict has been detected. It is also possible to transgress the norm of coherence—and making illogical or partial story worlds is a common trope of

experimental games and games with explicit artistic aspirations. However, the player Mortensen interviewed was clearly bothered by the inconsistencies in the game—and the different player groups were devoted to their interpretation, their story worlds.

When playing games socially, the equifinality conflicts pertaining to interpretation and story world can be explicit and obvious. When playing alone, the player interpretation of the story world is still an internal rule, guiding play and influencing what is seen as possible within the game.

Role-Playing as Internal Rule-Setting

Role-playing games, as a type of sociodramatic play, rely strongly on internal rules of playing “as if” the character is part of the activity. The core element of pretending to be someone else, adopting a fictional persona, is based on internally defined and validated rules. There is huge variance as to what role-playing means (whether the character is a pawn, a puppet, or a persona), but each of these stances comes with internal rules—and choosing between them is also an act of adopting a type of constraint.¹⁷

Rudimentary role-play can be set up by deciding if one is playing a hero or a villain. Even this simple choice has a significant impact on the gameplay:

One way in which I as a player have often altered the gameplay in *Oblivion* and similar role-playing games is by imposing rules on my avatar’s behaviour: if I am playing a character I have decided is evil, I will behave cruelly towards characters in the game, steal goods and attack innocent creatures with impunity. By contrast, if I am playing a good character, I will help non-player characters and avoid criminal activity and unnecessary violence whenever possible. (Parker 2008)

Deciding to play a “good” or an “evil” character does not imply a complicated character with a rich internal life, but it is shorthand that opens different ways of engaging with a game world.

An example of more complex role-play can be found in the *Sopranos*-inspired larp *The Executive Game*, where the participants play people taking part in an illegal high-stakes gambling night run by the mafia. Each of the players portrays an individual character with a coherent persona, playing *five-card draw poker*.

The players were simultaneously expected to conceal their (character’s) emotions from their fellow players, keep a poker face, *and* pretend that the chips on the table had real monetary value. This was an externally defined formal rule spelled out by the larp’s creator, Mikko Rautalahti, as follows:

To set the mood of the game, it needs to be stressed that the chips are to be treated as real money. Simply put, \$50,000 is one shitload of money. . . . Some of the more prosperous participants have lost more than a hundred grand in a game, but few people can afford to do that without sweat and anxiety. This shouldn’t be considered play money. It is your children’s college fund, the yacht you crave, the car loan and the home mortgage.¹⁸

Any currency in a game has endogenous meaning in that context. Here there is an additional layer of pretending what this large sum of money means for the characters portrayed. The underlying intent is to feel the rush of playing with real money, while jointly pretending with play money.¹⁹

While one’s portrayal of a character obviously contributes to the play experience of anyone present, the player’s first-person audience is the only one that gets the full meaning of the experience. Other players simply cannot know if a player/character is just pretending to be calm under their stone face or if they really are unaffected by the events of the game—just as the others cannot know if a player is following the rule

about pretending that the chips have real value. This experience and the meaning of the performance are available only to the player themselves—the requirement of pretense was externally defined but only internally validated.

Internal goal-setting is a big part of role-playing games. Maintaining character fidelity—playing *as* the character—can be a requirement of an externally defined rule, but the success is often internally validated, as it is difficult and sensitive to assess the “psychological realism” of someone’s performance from the outside.

When a character flees from a fight they had a good chance of winning, fellow players (let alone an external audience) cannot say if this was a “good” or “bad” interpretation of what the character would do in such a situation. Perhaps the character was secretly a coward? Or maybe the player really had to go to the bathroom and thus steered²⁰ the character toward fleeing? When watching fiction unfold in a film or a play, we can make this determination if the actors signal the internal states of their characters, but in a role-playing game, that cannot be done.

Role-playing is not just limited to role-playing games. The idea of role-playing “as if” someone else, engaging in socio-dramatic play (see Burghardt 2005) that humans learn at a young age, is a strong ludeme that players can incorporate in a surprising number of games. The internal rule that is adopted, making choices as if one was someone else, can override formal rules. The logic of “my character wouldn’t do that” can be used to play a game in a different manner. Adopting a role-playing stance toward a game not intended for role-play is another example of adding a constraint and thus transforming the game in a way that allows a player to encounter it afresh.

Role-playing also takes place in single-player games. Some players run through *Witcher 3: Wild Hunt* as a superficial

hack-and-slash adventure, while others get deep into an immersive and personal portrayal of Geralt of Rivia. Such players set themselves internal rules to portray a coherent interpretation of the character while following the somewhat predefined storylines of the game. For instance, the player might decide that Geralt is a law-abiding individual and play trying to follow all the diegetic laws of the land (see figure 2.2 and box: “Diegetic rules and goals”).



Figure 2.2

The humorous *fluff* vignettes in the *Blood Bowl* (fourth edition) rule books contain many references to diegetic rules of the game. The formal rules of the board game do not make it possible to set the referee on fire, so the mention of it being against the rules has no gameplay relevance whatsoever. If one would stage a tabletop role-playing game where players portrayed members of a blood bowl team touring the Old World, then these rules would become theoretically relevant. Photograph: Markus Montola.

Diegetic Rules and Goals

Diegetic rules are a special type of rules governing gameplay. These include the laws, norms, and customs existing within the game world. This category is only relevant in games where the fiction influences the events of the game—such as role-playing games and open-ended simulations.

The tabletop role-playing game *Vampire: The Masquerade* is a good example of diegetic rules. In *Vampire*, the players play vampires in a gothic-punk version of our world. Thus, all our laws exist in *Vampire*: if your character kills someone, the game master might have the diegetic homicide detectives investigate the crime. Depending on whether your character is able to turn invisible and wipe memories with a mesmerizing gaze, clashes with the law can be trivial encounters or deadly dangers.

Breaking diegetic rules only carries direct moral significance within the fiction. If a player-character vampire murders a bystander, the character is a killer, but the player is not: the murder only exists in the context C of the game.

Formal game rules are often dressed up as diegetic laws. For instance, in the game of *Monopoly*, the player's token will be sent to jail if they roll doubles three times in a row:

Three successive "doubles" send the Player to JAIL and he forfeits the dice.³⁰

Despite the phrase, this rule clearly belongs to the category of formal rules. After all, it is not like my thimble playing piece rolled three doubles in the game world anyway.

Characters in a fictional setting also adopt *diegetic goals*. These goals can align with the formal goals of the game, but often the diegetic goals are not recognized by the formal rules. Fighting for love or glory can still be the most meaningful part of the game to the player.

Even if a game is not set in an established world, a player may still see producing a coherent narrative or adherence to genre rules as a personal, internal goal, even if the game rules would allow choices that make no sense for the narrative logic of the world.²¹

Antisocial Internal Rules

Internal rules have enormous potential to transform play, and thus adopting them in multiplayer games is not a value-neutral act. Some players playing with internal rules can lead to conflicting understandings of what game is being played and how, which can reduce the enjoyability of the game for all involved.

Choosing to role-play an internally coherent character in a non-role-playing game is a good example. A player pretending a specific personality might be considered a problematic troll in a multiplayer strategy game; for instance, The Fascist Empire²² faction of *VGA Planets* is purportedly inspired by the Klingon Empire of *Star Trek*. A player determined to portray a psychologically coherent Klingon leader by executing an uncompromising aggressive strategy with little regard for diplomacy might be perceived to not play to win, which might violate the implicit or explicit social rules of play communities. Multiplayer strategy games such as *VGA Planets* are usually balanced with the assumption that all players are trying to win, which is problematic if some players have internal goals in a direct conflict with that lusory goal.²³

Maintaining character coherence is one of those rare widespread ludemes that can even replace winning as a goal (see figure 2.3). In some role-playing traditions, *playing to lose*²⁴ is valorized. The player is not trying to win, but to lose with

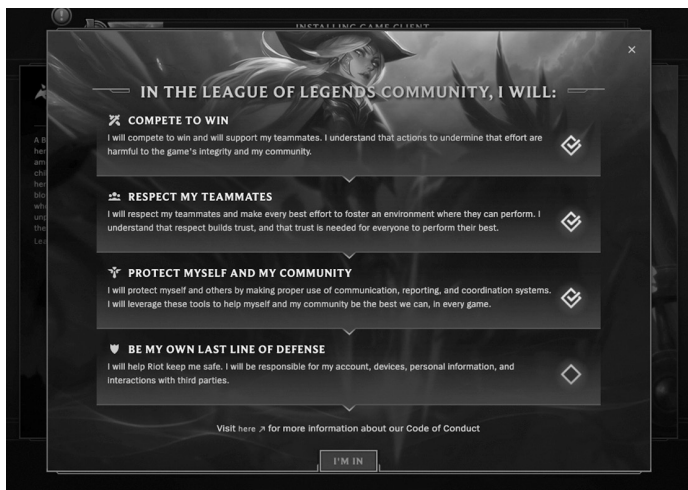


Figure 2.3

In order to play *League of Legends*, the players need to agree that they will “compete to win.” Internal rules that would deprioritize winning are generally not acceptable in team versus team games. Screen capture: Markus Montola.

style, or to create a meaningful tragedy. In the context of a game where everyone is trying to lose, the play style creates interesting dynamics, but in a context where most people are not even role-playing, it can be a disturbance.

Sometimes the antisocial behavior can even be the main source of pleasure when playing. A player can reject the goals of the game and start to play the *other players*. The internal goal is to disrupt the proceedings, to get a rise out of the other participants, and to draw enjoyment from this. Such disruptive playing is called *grief play* or *griefing* (e.g., Stenros 2015).

Griefing is easy to dismiss simply as antisocial behavior, but doing so would ignore its rule-bound nature. Griefing has a

clear goal, and it can be organized and planned in advance. Griefers may record their grief play and share via social media. Griefing mostly happens in digital games where the players need not constitute the game through enacting the rules, but a computer facilitates playing.

A formalist might argue that a player who has adopted internal rules is not playing the same game as their fellow players. While this idealist reading is valid, it does not change that in practice, the transgressive player is interacting with their fellow players within the confines of what is socially recognized as the same game. If play becomes too disruptive for fellow players, the differences need to be resolved before play can continue. As we discuss in the context of social rules, even choosing to follow rules meticulously to the letter can be seen as an internal rule and perceived as griefing by other players.

When it comes to griefing, ultimately the question boils down to the limits of play. To what extent are players allowed to adopt aberrant or subversive internal rules? In practice, the answer cannot be found in the realm of formal rules but rather in the realm of social rules.

All antisocial play need not be as disruptive: *cheating* is another mode of playing where a player either disregards some formal rules or operates by their own rules. Cheating does not aim to be disruptive; on the contrary, it is meant to be invisible and undetected. Stealing money from the bank in *Monopoly* certainly disregards formal rules, but its success in helping the player win is dependent on it not being witnessed—on not disrupting play.

Game scholar Mia Consalvo has studied cheating in digital games and found that players have quite divergent opinions on what counts as cheating (Consalvo 2007, 87–92). According

to her work, cheating is about gaining an unfair advantage in a game, and cheating is not just about breaking a rule or a law but also about stretching the rules or reading them in an advantageous manner. Even so, players do not agree on if one cheats a game, or is cheating only possible if there are other players present?

Cheating in single-player games is illuminating in relation to internal rules. Some players “cheat a little” when they play solitaire, peeking at the next card or taking a move back. The idea that some amount of cheating is acceptable implies that this cheating is rule bound, guided by internal rules about how much and in what way the rules of a game can be stretched.²⁵ Does it count as cheating if one consults a walkthrough or a strategy guide of a digital game? Is taking advantage of errors in the game equipment, be they software bugs or marked cards in a deck, cheating? Players have different answers—and while multiplayer games have social and formal rules to provide answers, players playing alone must often determine their own internal rules. (We will return to cheating in later chapters.)

Conclusions

Internal rules are subjective constraints and goals that players adopt as guidelines they follow as they play. While they are not shared among all players, they are a part of what constitutes a game as it is played by a player.

Internal rules emerge from interpretation of the formal rules, social rules, external regulation, and material rules but also from the events taking part in the game world, aesthetic ideals, personal game design choices, and existing ludemes adopted for play.

While the other chapters in this book are built around John R. Searle's model of the construction of social reality, this chapter is an exception: Searle's model is about shared social institutions—and internal rules are more or less private.

Some internal rules still very much resemble social facts: I am going to count game position X as a private victory Y in the context C of my internal rules for this game. At some other times, they are very vague; there is no Searlean formula to determine whether my portrayal of the Klingon Empire in *VGA Planets* satisfies my internal goals.

Players adopt additional rules for their gameplay in order to modulate their experience as the first-person audience of the proceedings. These internal rules often emerge from a known set of ludemes, such as adopting a role-playing stance toward the game or fostering an internally coherent interpretation of the story world. Games can also rely on unstated goals or implied optional ludemes that players can adopt, such as collecting and character customization. It is also possible that players adopt internal rules that are antisocial, in conflict with the rules that other participants in a multiplayer game follow.

In multiplayer games, social rules often supersede internal rules, providing answers to corner cases of cheating and providing external validation to various achievements. But no matter how many layers of rules are added to the play situation, the hermeneutic internal life of a first-person experiencer can never be fully controlled or analyzed. And thus, as long as players have diverging motivations, ambitions, preferences, and aesthetics, internal rules remain a relevant apparatus for understanding socially constructed play.

Ludemes and Game Mechanics

Usually, game mechanics are referred to as combinations of game rules. For example, game designer Raph Koster's (2011) definition is probably among the more generally agreed on: he discusses game mechanics as composite aggregates of game rules, consisting of a preparatory stage, input, and feedback. For instance, a platformer might have a game mechanic of jumping, consisting of rules dictating inputs and consequences of falling out of the screen.²⁶

Game designer and author David Parlett (n.d.)²⁷ discusses the way formal rule structures propagate from game to game using Alain Borvo's²⁸ idea of *ludeme*, a structuralist understanding of a "ludic meme." It is not accidental that both *draughts* and *chess* are played on checkered boards and that pieces have similar diagonal moves: the games clearly share historical roots, and memes move between games just like all other forms of culture. Elements propagating as ludemes can be anything from rule structures and visual conventions to core concepts of gaming.

There have been several attempts at analyzing and defining the elements from which formal game systems are created. Most notably, Staffan Björk and Jussi Holopainen (2005) published a collection of hundreds of *game design patterns*, essentially abstracted and generalized ludemes.

While the purpose of the pattern work was purportedly to help designers put their ideas into words, the practical reality seems to be that precise examples of ludemes are already the de facto language of game design. Game designers think and communicate in ludemes, assembling their games from ludemes and occasionally inventing new ones. In the daily work of an interdisciplinary game team, abstract design language is unlikely to be handier than "that guy should move like a bishop in *chess*."²⁹ This is how ludemes spread, by being copied and adapted from one game to the next.

3 Social Rules

At the very end of the extra time in the 2010 quarterfinal *football* match between Uruguay and Ghana, Uruguay's Luis Suárez stopped the ball from entering the goal with his hands (see figure 3.1). By doing so, he stopped Ghana from scoring a goal. The referee handed Suárez a red card and awarded Ghana a penalty kick—but as the penalty kick failed, the rule violation paid off. Ultimately, Uruguay won the game in a penalty shootout.¹

Was it *acceptable* for Suárez to intentionally commit a foul, willingly accepting the penalty, or is it *morally wrong* to foul? And if it is morally wrong, how can game rules address the moral acceptability of an intentional rule violation? Formal game rules can penalize Suárez and his team, but they are not good for solving moral questions about gameplay.

Strategic fouling—overt violation of rules for the purposes of gaining advantage despite a penalty—has been a hotly debated topic in the field of sport philosophy.² Philosopher Warren Fraleigh (2003) frames that question around two perspectives on sports: according to the *formalist* account of sport, the sport is defined by its rules, and thus intentional rule violation means that the player is not trying to play the same game as other players, and thus “intentional rules violations are not acceptable because of either violation of a contestant’s agreement



Figure 3.1

Uruguay's Luis Suárez prevents Ghana's goal with his hands in the 2010 *FIFA World Cup*. According to the 2010 *Laws of the Game*, such an act was deemed "unacceptable and unfair." But is it possible for formal game rules to pass moral judgment beyond their own purview of endogenous meaning? According to some reports in the sports media, Suárez was hailed as a hero in Uruguay after the match. Photograph: Roberto Schmidt/AFP via Getty Images.

or some form of cheating." According to an *ethos argument*, however, the spirit of the game and the social context of rule violation matter: sometimes intentional rules violations can be socially acceptable as a "part of the game."

In *football*, Suárez's act is deeply problematic as the official rules describe preventing a goal with a hand as "unacceptable and unfair":

A player is sent off, however, if he prevents a goal or an obvious goalscoring opportunity by deliberately handling the ball. This punishment arises not from the act of the player deliberately handling

the ball but from the unacceptable and unfair intervention that prevented a goal being scored.³

What does it mean that the formal rules of *football* declare Suárez's action "unacceptable and unfair"? Here the *Laws of the Game* are seen to codify ethos of play: we are no longer interested merely in the systemic consequences of actions but also on what people should think of Suárez's actions. The formal rule declares Suárez's act *unfair*, but consequences of the declaration are not legible to formal rules.

In this chapter, we discuss *social rules*, a set of cultural codes about the conduct of play that are messy and contextual in practice, even when there are attempts to write them as exactly as possible. Another way to think about social rules is as the norms and values relating to games.⁴ We follow social rules because we care about what other people think about us.

Game designer and scholar Stephen Sniderman (1999) argues that listing the complete rules of any game is impossible, in part because the written rules and the events of games are subject to interpretation in any case, in part because games are surrounded by the real world and in part because rule disputes need to be arbitrated anyway. While formal rules constitute the game and describe its procedures, social rules regulate how not only this game but also games in general should be played. These rules are sometimes discussed as implicit rules (see box: "Explicating social rules"). However, as players often are aware of and explicitly discuss social norms (see Bergström 2010), we use the more generic term "social rules." Indeed, this chapter is very much about making the implicit rules explicit.

In constructionist ludology, we view social rules as rules regulating the activity of playing a game according to its formal rules. Social rules can be implicit or explicit, but they are

Explicating Social Rules

The strength of social rules is their vagueness. While the etiquette of gaming can be discussed, it cannot be codified with precision. Social situations are too variable and unexpected to be accounted for ahead of time by an explicit rule system. The point of etiquette is not to follow the etiquette to the letter but to make complicated social situations easier to manage. Indeed, sometimes it is a major *faux pas* to point out a breach of etiquette by someone else. In a similar manner, social rules exist to regulate and help the game run smoothly.

Strict codification of rules relating to social conduct moves emphasis from the goal (smooth and enjoyable playing) to the rule system. Philosopher Peter Suber's *Nomic* makes this point: it is a game where the rules of the game are all spelled out explicitly, and they can be altered by the players through the process of democratic voting. Suber writes,

Nomic even makes some rules explicit in order to make them amendable, when in most games they are implicit—rules to obey the rules, rules that players each start with zero points, and so on. No tacit understanding that one brings to most games simply qua games, let alone any explicit rule, is beyond the amendment power of Nomic. After Nomic was first published in *Scientific American*, a German philosopher wrote to me insisting that Rule 101 (that players should obey the rules) should be omitted from the Initial Set and made part of a truly immutable shell. He missed an essential point of the game. Rule 101 is included precisely so that it can be amended; if players amend or repeal it, they deserve what they get. (Suber 1990)

Suber obviously does not attempt to write all social rules down, but he makes some of them visible. By purposefully moving them into a sphere where the players can discuss, alter, or even remove them, he underlines their importance. Social rules can be played with, but doing so risks shattering the concept of what “playing a game” entails.

arbitrated by the players; no external agency will intervene to enforce the rules.

Social rules are akin to values that guide play. Instead of being algorithmic and exact, they are a little vague, leaving some room to maneuver. In that sense, they resemble *legal principles*; while rules can either be complied with or not, principles can be fulfilled in different degrees.⁵ We cannot make a black-and-white determination on whether someone is “playing fair,” “following the spirit of the rules,” or “being a good sport.” Ideally, we are supposed to maximize our compliance with principles, but making practical determinations is difficult, and sometimes the social rules can be in conflict.

Playing Games the Right Way

How important is rule following to playing a game correctly? In the previous chapter, we discussed internal rules and goals, which may be in conflict and even supersede the formal rules. Here we also argue that social rules may trump formal rules. Does “the game” vanish in all this fuzzy negotiation? Philosopher C. Thi Nguyen (2019) has examined the question of whether there is a right way to play a game.

The answer is complicated. Literally and narrowly, yes: a particular game is a work, and there is a right way to play it. Playing it that way retrieves the particular sorts of experiences that the artist intended to embed in the material artifact. Obeying the prescription is the only way to experience the original work—and so the only way to actually experience that work as a communication. (Nguyen 2019)

Rooted in *prescriptive ontology*, he argues that to engage with a game, it needs to be encountered in the right way: we can

lick paintings and evaluate their taste, but the right way to approach them as artistic works is by looking at them (from the front). Just like the right way to approach books is to read the words in order, Nguyen argues that games are correctly appreciated by following their rules.⁶ Indeed, Nguyen continues his answer to the question about the right way to play in a way that takes this into account:

In a larger sense, however, we are not always bound to experience particular bits of material under the regime of the artist's intent. We also have reason to experiment, to re-mix and re-shuffle, to try out various artifacts under various different prescriptive regimes, and so generate new works. In that way, we can explore the space of possible social practices, to generate new patterns of prescriptions, and to figure out which ones we should focus on. (Nguyen 2019)

However, playing according to the rules and playing with the rules are different ways of engagement. If we accept Nguyen argument, then the right way to play a game is by following its rules. But in order to play, we need to know how games are engaged with in general but also in particular: party games, according to Nguyen, are to be “played with a spirit of levity” rather than, for example, seriously for skill development (see box: “Rules made to be broken”).

Nguyen does not use the term “social rules,” but he is basically arguing that the right way to play is by following them. Social rules are not simply interpersonal norms about play etiquette but also instructions⁷ on how the game is to be played. This is where making sense of the right way becomes complicated, as there are certain norms about how games in general should be played, norms pertaining to certain genres of games, and even norms specific to particular games.

Communicating how a game should be played becomes complicated when it is attempting to challenge existing norms. *The*

Extraordinary Adventures of Baron Munchausen, by James Wallis, gentleman, signals its play style through creative writing:

If a player is unwilling to tell his story to the company, or falters in the recounting, then he may plead that his throat is too dry to tell the tale; and good manners demand that the company must let him retire honorably. However, good manners also demand that he must obtain a drink to wet his throat, and in doing so it would be greatly impolite not to furnish the rest of the company with refreshments also. In short, a player may decline to tell a story, but must stand each member of the company a drink if he so does. (Wallis 1998)

The entire rulebook is written in this elaborate tone. The underlying rules are simple, but the designer has decided to take some twenty pages to explain them—as the goal is to establish the feel and genre of the game (see box: “Genre and story rules”). The point is not so much in what story is told but how it is told. *The Extraordinary Adventures of Baron Munchausen* was an early work in what became the genre of storytelling games. It was necessary to establish what that means in the practice of play—how to be entertained and entertaining in the social storytelling game.

Fair Play and Sportspersonship

In sport studies, the principles of fair play and good sportspersonship⁸ are seen as issues of ethics.⁹ Sportspersonship has often been conceptualized as an expression and a source of virtue; indeed, Pope Pius XII’s account is typically pompous:

From the birthplace of sport came also the proverbial phrase ‘fair play’; that knightly and courteous emulation which raises the spirit above meanness and deceit and dark subterfuges of vanity and vindictiveness and preserves it from the excesses of a closed and intransigent nationalism. Sport is the school of loyalty, of courage, of fortitude, of resolution and universal brotherhood. (Pius XII 1960, ref. Keating 1964)

Genre and Story Rules

In some games, the “spirit of the game” implies very specific implicit rules about what actions are possible or desirable. Games that have a strong story component and feature elaborate fiction may situate themselves in a particular literary genre. If a game is understood to be a western, a romance, or a piece of horror, actions that violate genre rules may invite resistance even if they are, according to formal rules, completely legal.

Similarly, games with narrative content imply that there is a structure to the story. These rules are not precise and there is much room for variance, but players may still have a strong tendency to favor narrative coherence and achieve closure. The paratexts around the game, such as the picture on the game box or the instruction booklet, or novels set in the game world also create expectations that players can implement as social rules.

Genre and story rules are akin to formal rules in the sense that they are implied by the game artifact and related paratexts. If a game is advertised as a western, that creates expectations relating to the actions that are possible in it. On the other hand, genre rules are like internal rules as they are not formally stipulated but interpreted and enforced by the player. However, genre rules are situated here under social rules, since they are neither strict or implicit, nor do they guide just a single player. Although imprecise, genre rules are shared among the players.

The conceptualization of fair play has a strong historical connection to elites who had the “socioeconomic circumstances that allowed non-instrumental and exclusive ideals to develop” (Sheridan 2003).¹⁰ Over the years, people invested in fair play and the idea that sports build character have produced explicit codes that attempt to capture the principle of good sportspersonship. These codes are often general and open to

interpretation, such as “Keep the rule,” “Keep faith with your comrades,” “Keep your temper,” “Keep pride under in victory,” and “Keep a sound soul and a clean mind in a healthy body.”¹¹

These codes are expressive of an ideal: a player should be morally pure, a good team player, respectful in victory, and of good humor in defeat. Following rules, and in particular following the spirit of the rules, is an explicit key element. Victory should be honorable and cheating is an anathema.¹²

The *Fair Play Code* of the *football* governing body FIFA from 2010 is much more recent and specific to that sport. Their ten commandments¹³ are telling as the aspirational quality of the ideals presented is plain to see:

1. Play fair.
2. Play to win but accept defeat with dignity.
3. Observe the laws of the game.
4. Respect opponents, team-mates, referees, officials and spectators.
5. Promote the interests of football.
6. Honour those who defend football's good reputation.
7. Reject corruption, drugs, racism, violence, gambling and other dangers to our sport.
8. Help others to resist corrupting pressures.
9. Denounce those who attempt to discredit our sport.
10. Use football to make a better world.

(FIFA 2005¹⁴)

Roughly half of these rules are typical to such lists, while the other half speaks to guarding the common interest of the game and its players. The athletes are seen to have a responsibility toward the sport as a whole, being required to guard the purity and reputation of the sport. Like players of many other games, footballers form a “secret society of players” (Huizinga 1938/1955), which an international, influential institution like FIFA makes visible through this kind of rules.

When playing for diversion and fun, another central value is generosity. Sports philosopher James W. Keating (1964) states that the player should make a determined effort to “avoid all unpleasantness and conflict and to cultivate, in their stead, an unselfish and co-operative effort to maximize the joy of the moment.” Mutual enjoyment takes primacy even over winning. Obviously, especially in the context of sports, all game-play is not rooted in fun.

The two first tenets of the FIFA code immediately establish two conflicting principles. If players are expected to play fair and to play to win, the immediate question is: *To which extent?* What constitutes *fair* when winning is at stake?

An example of this kind of a moral dilemma in sport ethics relates to the conduct of contestants: Josie and Annika are about to compete, but when Josie arrives, she lacks relevant equipment through no fault of her own. Let us say that the airline has misplaced her racquet. Annika has a similar enough racquet with her. Should she lend the equipment to Josie?¹⁵

The formal rules of the game do not require Annika to lend the equipment. If the game happens in a tournament setting, Josie may need to forfeit, and Annika wins by default. Annika has broken no rules on her way to victory, but it is hardly an honorable one. This is an example of *moral minimalism* (McNamee 1998/2002, 163–164): as long as a player does not violate the formal rules of the game, play has been proper and moral. Not lending the racquet to Josie also impoverishes the sport, since it robs it of an interesting match (Butcher and Schneider 1998). If this game does not happen in a tournament setting, then Josie and Annika cannot play, and the game does not take place.

A concrete example of moral minimalism in sport took place in *Formula One* in Spa, Belgium, in August 2021. Due to

heavy rain, the drivers could not race safely, so they only completed a single official lap at low speeds, behind the safety car, with no overtaking permitted, in the order determined by the qualifying rounds of the previous day. The FIA successfully fulfilled all the formal criteria of a race, allegedly in order to avoid refunding tickets and broadcasting fees. After the one lap, Max Verstappen won the morally minimalist race where no racing took place.¹⁶

Sport philosopher Heather Sheridan (2003) argues that a preferable account of fair play should be based on the ethos of a game. If we are to “understand the ethos of a sport, we must first understand the sport itself, its history, traditions, rituals, conventions and practices,” she argues. This ethos varies between different communities even within the same game since, for example, elite players and hobbyists can have different expectations and standards.

The ethos of fair play has been mostly highlighted in serious sports, in the field where the stakes are highest for the players. This is somewhat paradoxical, as players playing on higher stakes tend to typically require stricter commitment to formal rules. When stakes are high, it is hard to give quarter or to concede an advantage due to fair play. This is what makes the ethos of fair play so noble: it matters when the stakes are high.

An example of such sportspersonship comes from an important *football* match between Leeds United versus Aston Villa in April 2019. As Aston Villa’s Jonathan Kodjia went down with injury, his teammates were expecting the ball to be put out of play, as is customary. Instead of doing so, Mateusz Klich of Leeds scored an opportunistic goal against the spirit of the game. Afterward, Leeds head coach Marcelo Bielsa ordered his team to stand aside and let the Aston Villa score an equalizing

goal.¹⁷ Both Klich's and Bielsa's decisions were picked up by the press as deviations from the expected standard of good sportspersonship: Klich's decision being criticized as objectionable and Bielsa's celebrated as a reminder of the nobility of the sport.¹⁸

While the previous discussion pertains specifically to sports, it seems that many of the issues discussed have a wider validity in games. These articulations of principles, norms, and values relating to the conduct of a player seem recognizable in many other games as well. The principle of fair play has normative force, but often the games themselves cannot punish violations of principles. Instead, a repeat offender might have a hard time finding company for board games or commercial partners for sponsorships.

Playing Nice

The ethos of fair play is widely recognized and discussed. However, not all play cultures have as widely shared ethea. Folklorist Kenneth Goldstein's (1971) observation that there are two sets of rules—the idealized, official rules ones should play by and the rules his informants actually play by (as discussed in the Introduction)—is important when attempting to make sense of gameplay. One could think of these two as formal rules and the praxis of their interpretation—as guided by ethos and social rules.

Play researcher Linda Hughes (1983/2006) provides a particularly illuminating example in her exploration of Rooie rules. She observed children, mostly girls in third to fifth grades, play *foursquare* for almost three years on a school playground in Philadelphia. In the game, the “king” calls out the rules of play for a round, and one commonly used set of rules was “Rooie rules,” named after one of the players. This set of

rules specified what movements were forbidden—such as “no holding” (ball should be hit, not caught, and then thrown) and “no slams” (ball should not be bounced so high as to go over other players’ heads)—but no one, including the king, or Rooie herself, could offer a complete list of the Rooie rules. According to Hughes, this was not a problem in actual play:

What allows the game to proceed within such apparent ambiguity concerning the precise rules of the game is the tacit understanding that Rooie Rules are “nice,” and “nice” is perhaps the paramount concern among these players. It is far more important to understand “nice” play than to understand the rules. (Hughes 1983/2006)

Rooie rules were even invoked by inexperienced players who were still learning the game rules. What allowed such ambiguous rules to work was the shared understanding of *niceness*. Players could and did violate the letter of the rules, they might hold or slam, but this was not a problem as long as they did this in a jovial and prosocial manner, or while still learning the game, or when such rule violations were followed by appropriate performances of “I couldn’t help it.” Rooie rule violations were seldom called out since calling out rule violations is not “nice.” As Hughes (1983/2006) puts it, “Invoking a ‘rule’ is not merely a statement of fact about a player’s actions, but an accusation of having violated something of the social order, a much more serious charge.”

Rooie rules and playing nice worked well until boys, who played closer to the letter of the rules and did not subscribe to the idea of playing nice, joined the game. The girls were forced to attempt to formalize the praxis of playing nice, but this was not successful since the ethos of play was no longer shared. Simplistic understanding of rules as monolithic and explicit does not lead to playing well together:

Games aren’t much “fun” when rules, rather than relationships, dominate the activity, when there is no attention to “flow,”

“fairness,” “respect” and “nice.” We need the leeway to be playful in these relationships, to share and enjoy the performance that sneaks nastiness by as nice, that displays knowledge of the “ideal” rule and plays with the boundaries of the “real” rule. (Hughes 1983/2006)

Hughes’s work makes wonderfully visible how having a shared ethos of play is central to constructing an enjoyable game. Sometimes people who insist on playing by the formal rules can take the fun out of playing for others, and such *rules lawyering* can be frowned on.

It is possible, and common, to attempt to overcome this challenge by formalizing social rules, but ultimately, the ethos of play cannot be reduced to procedural rules. Even so, it is worthwhile attempting to articulate these implicit norms.

Social Rules in Board Games

All kinds of games have their norms and ideals. Karl Bergström (2010) has studied the social rules of experienced board gamers to uncover their implicit social rules. He has identified numerous shared principles but also topics where rules differ.¹⁹

The board gamers studied by Bergström expected all players to seek to optimize their position in the game. At the first glance, this might appear easy to codify into a formal rule: “Every player must attempt to optimize their position in the game on every turn.” The practice, however, is far more complicated: beginners might be clueless about best strategies, veterans might want to explore new and better strategies, and ultimately, there might be disagreement over both best strategy and best position. In a *poker* tournament, a bad player might end up in a situation where it might make sense to go all-in with only one out of ten chances of winning: the odds are bad, but still better than the odds they would get by staying longer in the game. Seeking to optimize one’s position is a

principle that one is expected to follow, although there can be no universal correct answer as to what it means.

Bergström's informants were divided over how to value the second place in a board game. Should a player forfeit a solid second place for a slim chance of victory? In a formalist stance, the formal valorization of outcomes²⁰ should determine the answer: surprisingly, many board games do not formally recognize the second place. In the context of formal rules, we discussed the following rule of *Yahtzee*—which is the only rule concerning placement in the game:

After the scores are tallied, the player with the highest Grand Total wins the game!²¹

As there is no formally recognized second place in *Yahtzee*, it is *impossible* to formally place second in a game. In the practice of everyday play, social rules frequently trump formal rules, and the player finishing with the second highest score will be congratulating themselves for almost winning the game, and the two players with identical high scores will consider themselves tied for the win.

Bergström's informants even argued that players should strive for an optimal position even after it is clear that they no longer had a chance of winning. From a formalist perspective, if a player has no chance to reach a valorized outcome, the requirement of playing to win without a possible strategy to reach the goal is unintelligible. Even so, the principle of optimizing one's position sometimes seems to require one to *pretend* to have a chance for victory and playing to reach that impossible goal.

Other rules that Bergström (2010) uncovered are that players should not terminate the game early, even if their position will only deteriorate, or leave the game before it has concluded. Players are also expected to adhere to the spirit of the game, not

whine about the game or their position in it, not gloat or sulk excessively after a game has concluded, not avenge the deeds of past games, and not engage in metagaming (such as collaboration between spouses, threatening out-of-game consequences).²²

According to Bergström (2010), rules vary from group to group. Each group had to address how to handle issues such as a player taking back a move, figuring out how long one can take to make a move, managing deals and cooperation, handling rule arbitration cases, and sanctioning the transgressions of social rules.

Board gaming groups seem to have transferable norms that apply to new games once they are introduced to the group. If we have agreed to “never ever take back a move” in the games we have played, we are likely to follow that social rule in our future board games as well. These rules are indicative of a particular player culture and speak to the values of the players. Exploring the social rules of people who play board games in pubs would likely produce a very different list of rules. Searle’s formulation of regulative rules regulating “antecedently existing activities” still holds true: it is just that the activity is *board gaming* rather than playing a specific game. Even Bergström’s informants would surely have a different set of social rules for board gaming and for play in massively multiplayer online role-playing games.

The social rules uncovered in Bergström’s work show how a player group or a subsection of a hobby group thinks about the conduct of play. While there is disagreement about the specifics of the rules, the players have a similar enough understanding of the underlying values. The need to formalize these rules is not strong enough to warrant the cumbersome explicit negotiation and codification of the rules, since playing is not systematic enough and the stakes of playing are low. People who

play board games as a leisure pursuit, even if they do so with regularity and intensity, need not formalize their social rules.

While often player behavior is left to be regulated by the social rules, sometimes formal rules do cover small details of player behavior when the designer deems it critical for the game to function as intended. For instance, many games with traitor mechanics have rules about limiting communication. Judging by the uppercase emphasis in the early *Monopoly* rules, the game was as much about watching out for rentals as it was about developing properties, and helping other players was not an infraction of the social norms but an explicit violation of formal rules:

Property owners must watch out for rentals due. DO NOT HELP OTHER PLAYERS WATCH THEIR PROPERTIES.²³

Author and essayist Roxane Gay has recounted some of her experiences in participating in competitive *Scrabble*, describing both social rules and personal play preferences of specific players:

Player can be very . . . *particular* about how you comport yourself during a Scrabble game. Some players want complete silence during matches, so they won't appreciate your idle chatter. Some player think you're cheating if you play with your phone. Don't take a call should your phone ring, that's for sure. I once got a dirty look for tapping on my phone without muting it. Apparently, the gentle beeps were simply too much for the player. The longer you play, the more you finely hone these particularities. I, for example, have developed several Scrabble-related pet peeves and preferences. I have strong opinions on the type of scoring sheets I use to keep score (Uni-ball .5mm roller ball). I now have a very low tolerance for people who draw their tiles in annoying ways. I am particularly aggravated by players who do a lot of mixing the tiles before they each draw. IT DOES NOT CHANGE THE OUTCOME. I also do not look kindly upon players who tap the tiles on the board

as they tally their points. Why are they doing that? What really sets me over the edge, though, is when players recount my word scores after I've announced my score at the end of a turn as if I am incapable of simple math. Certainly, math is not my strong suit, but in general, I have addition under control. When this unnecessary score verification occurs, I sometimes have to sit on my hands to keep from punching a player in the face. (Gay 2014, 35)

It is possible to see the reasoning behind many of these preferences. Play should be conducted in a diversion-free environment. The possibility for cheating via a mobile phone should be reduced. These are indicative of certain values relating to play. However, sometimes values can be in conflict, for example, when a player should be trusted to play fair, yet each player should be allowed to verify each move.

Some preferences are more arbitrary. The idea that a game should be played with specific equipment is in conflict with a formalist conceptualization of games, for example, the so-called *rules of irrelevance* (Goffman 1961), which state that the equipment should not matter, that *chess* is *chess* whether the play pieces are made from plastic or ivory. In some games, the equipment clearly does matter—for example, in some sports. Sometimes specific equipment also carries cultural meanings—and many players prefer to use specific personal equipment, such as “lucky dice,” or they may hold strong opinions on material play implements similar to what Gay mentions. Indeed, players of *Warhammer 40,000* are more likely to rather throw dozens of physical dice on an already full gaming table than use a handy and quick dice-rolling application—because it is more tangible, fitting, and fun (see Carter, Harrop, and Gibbs 2014).

One peculiarity in the culture of board gaming is that social rules in the table often trump the otherwise increasingly appreciated cultural norm of *ongoing enthusiastic consent* to play.

After commencing a board game, one is typically expected to play to the bitter end, no matter how slim the odds of victory, no matter whether the player wants to continue or not. A part of this dynamic comes from the fact that one player forfeiting the game may ruin the competition for others. In team games, the dynamic presumably comes from protecting the teammates; playing in a team requires commitment to common goal even against impossible odds. In games like *League of Legends*, the player can be punished as a griefer for taking frequent breaks or quitting games often.

Based on our personal experience, however, this applies even to many two-player games: while *chess* and *go* have clear formal rules for forfeiting, and their play culture considers such decisions fully acceptable, quitting a casual two-player game in a social setting can lead to accusations of being a spoilsport. In Premier League *football*, in multiplayer *Risk*, in team games of *League of Legends*, and in casual two-player *Yahtzee*, fair play is usually construed as playing to the bitter end.

Formalizing norms and values is difficult: while the constitutive rules of a game must be clear and explicit, the regulative rules that attempt to grasp at the “spirit of the game” are more complex and contextual. This is because their influence and relevance are not limited to the act of playing but a wider social situation and cultural framework. Formal rules treat players as interchangeable abstractions, while social rules apply to real people that have a history and cultural context. A player might be allowed to take back a move because they are tired after staying up with a teething baby, in a situation where another player might be forced to live with the mistake. Explicating social rules at this level is not possible to do ahead of time; negotiation has to happen on the spot.

A key function of social rules is to fix, or circumvent, perceived problems of formal rules. The requirement of playing to win even without any chance to do so comes from the fact that most board games are zero-sum economies, where even losing players have a significant impact on the valorized outcome.

The *kingmaker dilemma*²⁴ is a common problem in board games that players attempt to often solve with social rules. The most archetypal kingmaker situation is one where a player cannot win anymore, but their actions or inaction still determine victory between other players. This is very common in n-player war games where players can attack each other on a map, such as *Risk* or *Game of Thrones*. What is acceptable behavior for the player?

Maybe they should take revenge on whichever player wronged them most? Maybe they should fight for resources the best they can, to be as rich and powerful as possible when they lose? Maybe they should fight to place as highly as they can in the end, although the second, third, and fourth places have not been formally defined? Maybe they should work to harm the player closest to victory, in order to avoid defeat as long as possible? Maybe they should make whatever incredibly risky moves can provide them with infinitesimal odds of victory? Maybe they should refrain from any impactful moves and allow the players with reasonable chances to fight for victory without distraction? Maybe they should still help their best former allies carry the day?

There is no widely agreed-upon answer on which of those futile strategies demonstrates the best attempt at fair play from the loser. And if a player community decides one as a social house rule, it allows all the moves of the kingmaker player to be subjected to moral scrutiny.

The reality of kingmaking is even murkier because players can engage in kingmaking behaviors even when they are not guaranteed to lose. Maybe a player's situation is bad, but far from hopeless. Maybe the player is taking revenge on something that happened in the previous games. Maybe the player is metagaming, helping their romantic interest to win over other friends.

The social control of kingmaking requires policing both the acceptable *strategies* and the acceptable *motivations*. Policing player motivations through formal rules would be an arbitrary and probably futile effort—we are not aware of any board games that would have formal rules trying to control players' motivations, and it is hard to imagine how they would work. While FIFA can require footballers to play to win, enforcing that rule requires refereeing in a way that is not feasible in board games. For this reason, social rules are a necessary complement to the formal rules.

In tournament play, such policing is possible. Most players seem to agree that the pace of a board game must be “reasonably fast” (Sniderman 1999; Bergström 2010), even at the cost of optimal moves. But as the social rule is vague, players cannot be trusted to uphold them when the stakes get high. Sometimes a very long thinking time counts as reasonably fast, if the situation on the table is dire and players commonly agree that a bit longer thinking time is acceptable in this particular situation. As a solution, competitive board games often have formal tournament rules that remove the most ambiguous elements of social rules. Games such as *Magic: The Gathering* and *Warhammer 40,000* are examples of games with loose rules for casual play and stricter limitations for tournament play. For example, *Magic: The Gathering Tournament Rules*²⁵ address the issue of turn duration:

5.5 Slow Play

Players must take their turns in a timely fashion regardless of the complexity of the play situation and adhere to time limits specified for the tournament. Players must maintain a pace to allow the match to be finished in the announced time limit. Stalling is not acceptable. Players may ask a judge to watch their game for slow play; such a request will be granted if feasible.

This reflects a general property of games in general. When the stakes get high, the players stand to lose more if they adhere to the ideals of fair play (see figure 3.2). As competitive games can rarely have multiple winners, formal rules are often necessary to create an orderly structure where players can do their best to win. Players competing hard need a solid framework to rely on.

Peer Rules in Virtual Spaces

Whenever players are allowed to freely communicate within a persistent virtual world, they will eventually start to establish communal rules on how the game should be played. David Myers (2010) has exposed how the social rules established by players can occasionally be in direct contradiction with the stated or materially embodied rules of a digital game. In his breaching experiment playing a character called Twixt, Myers managed to upset a great number of players through meticulous following of the formal rules of *City of Heroes/City of Villains* while ignoring many player-created social rules. He was ridiculed, ostracized, harassed, and threatened, both privately and publicly. Players clearly prioritized their social rules over the formal ones, punishing Twixt and any players who mimicked his tactics:

Indeed, the strong, negative, and increasingly emotional reactions to Twixt's behavior were almost always focused on preserving



Figure 3.2

The introduction of chessclocks in the mid-nineteenth century had an immense impact on *chess* tournaments (Fine 2015, 87). According to *Laws of Chess*, *chess* is still *chess* even if clocks are not used, but devoted players have different ideas. Gary Alan Fine (2015, 2) quotes the head of the Boylston Chess Club as saying, “A tournament player is a chess player. Someone who plays with his family or on long vacation trips is not a chess player.”

According to the rules, “‘Chessclock’ means a clock with two time displays, connected to each other in such a way that only one of them can run at one time.” The operation of the clock is subject to strict protocols: for example, “A player must press his clock with the same hand with which he made his move. It is forbidden for a player to keep his finger on the clock or to ‘hover’ over it.”

In *rapid chess*, each player has ten to sixty minutes to complete their moves and, in *blitz chess*, ten minutes or less. In *bullet chess*, not covered in *Laws of Chess*, each player has less than three minutes. “Managing time is a skill that chess coaches emphasize soon after novices learn basic tactics” (Fine 2015, 217). If social rules about reasonable time are formalized in a way that can be policed, the game changes. Photo from Haiphong, Vietnam, 2018. Photograph: Nguyen Hung Vu/Flickr.

beneficent social communities and friendships in blatant disregard of game rules. The most important negative consequence of Twixt's behavior in the eyes of other players, then, was not his failure to achieve game goals—Twixt's opponents “failed” this test more often than he did—but his failure to garner and sustain social connections: the most repellant consequence of Twixt's behavior was that it made him *disliked*. (Myers 2010)

We can call the social rules established by players, usually at least ostensibly for the better functioning of an in-game society or economy, as *peer rules*. Depending on the game, the peer rules can concern anything from *ninja-looting*²⁶ and *ganking*²⁷ to good netiquette and proper play behavior. Sanctions for misbehavior can range from verbal rebukes to loss of reputation in the wider player community and even “violence” in the form of being physically attacked by other characters.

This is a territory of rules, where a formalism fails to produce meaningful analysis. For instance, we can look at the practice of *teabagging* from first-person shooters. Senior editor of *Game Developer*, Bryant Francis describes it as follows:

“Teabagging” refers to a taunt in multiplayer games where players stand over an opponent's dead body and repeatedly crouch their character over the corpse. It's meant to mimic an actual sexual act where one person's genitals come in contact with the face of their consenting partner. The fact it's a sexual act notwithstanding, the extra uncomfortable layer is the impression of doing it to an unconsenting person or as an act of dominance. If you did it to an opponent on a soccer field, bowling alley, or arcade, it'd be a straightforward case of sexual harassment. Teabagging has been around since the days of *Quake* and *Unreal Tournament*, and depending on who you ask, it either gained popularity there or with multiplayer for *Halo Combat Evolved*.²⁸

While it is certainly possible to formulate a formal rule that forbids teabagging, it is hard to identify in practice without a referee. More generally, it is difficult to create exact rules

to distinguish trolling and griefing from socially acceptable behaviors; when is hitting the crouch button repeatedly near the opponent's camera teabagging? Naturally, these kinds of norm-defying play practices also develop in the gray areas and blind spots. Gaming culture often develops to circumvent formal rules. Teabagging is not about following the rules; it is about the etiquette of play.

Is teabagging forbidden by social rules? There is no simple answer: most game operators, scholars, and journalists condemn the act of mimicking sexual harassment as a signal of gloating, but this is not the whole truth. Player communities are divided on the topic, and peer rules cannot be dictated by any specific authority. Arguably, the fact that many players engage in the activity shows that those players find it funny and acceptable. As social rules can be negotiated within specific player communities, teabagging can be an acceptable taunt in some contexts and go against the social rules in others.

In order to allow players to establish peer rules in conflicting situations, the game developer needs to equip the players with some tools required solve conflicts and maintain order. The problem of teabagging is that there is usually no way for peers to easily avoid playing with teabaggers.

The most typical form of empowering players to police their communities takes place in games where players play together in guilds, where players can designate members with power to sanction each other.²⁹ Typical guild rules include requirements for playtime or contributions to common goals, rules about gaining ranks and promotions in the guild, or rules about distribution of common resources among the group. Behavior in guild chat can be controlled, and there may be requirements on what kind of help members must extend to each other. Typical sanctions include promotions, demotions,

and being kicked out of the group. Giving power to the player organizations, however, means passing the responsibility of fair governance also to players: if players then create unacceptable rules, such as racist membership criteria, the game operator needs to step in to watch the watchmen.

The peer rules established in the game tend to be a by-product of the game design. If guilds are rewarded for grinding toward a collective goal, players will self-organize into a stratified system where most diligent grinders will band together and form high-intensity guilds with extreme peer pressure. If players need to struggle for limited resources that can be stolen by other players, players will create rules for fair distribution of the resources and for punishing the numerous players who will undoubtedly break such rules to gain advantage.

Conclusions

Social rules regulate how games are played. They are inexact norms, ideals, etiquette, and ethics that bring about fair play and sportspersonship. These rules are hard to pin down and explicate with clarity since they not only refer to the ordered and relatively contained formalist game but also are expressive of an ethos and must account for the social situation and cultural context.

Another way to think about social rules is as *tradition*. Our unarticulated understanding of what it is to play games influences every instance of our playing, even when we are engaging with seemingly new games or game forms. When artists use games as material in their works, often these traditions, normative ways of seeing, are laid bare. For example, Yoko Ono's *Play It by Trust* comprises an all-white *chess* set. The board is white, as are all the pieces. The institution of *chess* is the foundation

of the work, but since after a while, it is hard to remember which piece is yours and which belongs to the opponent, the work questions the conflict at the heart of the game. The work shows how we assume that players are able to tell apart the pieces of different players. *Play It by Trust* is a game, but it is primarily a piece of visual art.

Social rules are, obviously, social. They are shared with other players, even if the players may be unable to explain or even be consciously aware of them. Changing them is also hard as they remain unsaid, invisible. Play designer Bernard De Koven has written on the importance of developing a play community that can find a way to play well together:

We cannot even begin to explore ways of changing the game until we are certain that we share the intention to play well together. This certainty is not found in the rules of any game. It lies in the nature of the relationship we are able to build with each other—in the establishment and the continual reaffirmation of our intention of playing well. It is found and maintained through the conventions of the play community. (De Koven 1978)

De Koven's notion of a play community is an ideal. We do not always play by exactly the same rules, and social rules can certainly be used to exclude. Literal, formal readings of vague social rules can be weaponized against specific players. Even so, the spirit of the game lies in social rules.

Rules Made to Be Broken

Sometimes game rules exist to be broken (see also Sutton-Smith 1972/1977). In the multiplayer game *B.U.T.T.O.N.*, the players follow instructions on the screen to put down their controllers and take a number of steps back, are given specific commands (“Do

five pushups”), and then compete to reach the controller and push buttons to win. Designer Douglas Wilson (2012) explains that the game actively embraces ambiguity and even encourages cheating:

Other commands, such as “Close your eyes” and “Turn around,” all but force the players to cheat; though the computer playfully scolds “Dude, no cheating!” the players have little choice but to peek if they want to find out when the race begins.

As a party game explicitly inviting a playful attitude, *B.U.T.T.O.N.* invites disorderly play, but it can emerge in any game. Disregarding play and just concentrating on the rules gives only a partial account of an actual played game.

Formal rules usually neglect to mention why a player plays a game. A game can be played playfully, for its own sake (cf. Makedon 1984; Stenros 2015). It is usual to presume that this approach to playing a game is at least hegemonic if not correct. However, games are played for any number of reasons. Playing is work, and a game is a site of labor for not only the professional athlete, the cardsharp, and the kindergarten teacher. Sometimes a parent plays the card game *Uno* with a kid to distract them. The formal rules take second place to create a sufficiently *Uno*-like activity.

Stagings of games where the social goals of the activity are more complicated than simply fulfilling the victory (or ending) conditions are abundant. In these activities, the formal rules are constitutive only up to a point. Let us examine game spectacles. The rules exist and make the event possible, but disregarding them does not lead to the collapse of the game. Literary theorist Roland Barthes has analyzed the spectacle of a game of *show wrestling*:

It is therefore easy to understand why out of five wrestling-matches, only about one is fair. One must realize, let it be repeated, that ‘fairness’ here is a role or a genre, as in the theatre: *the rules do not at all constitute a real constrain*; they are the conventional appearance of fairness. So that in actual fact a fair fight is nothing but an exaggeratedly polite one. (Barthes 1957/1972, emphasis added)

If a game is only a performance, it is no longer a game, but there is a gray area between performances and games. For a number of years, there was an annual tradition in Helsinki, Finland, of staging *Drag Bear Race*. This was a competition for hirsute drag queens, where the contestants, among other things, must run a foot race in high heels in a park. Unlike contemporary televised *show wrestling*, *Drag Bear Race* is unscripted, and the winner is not decided in advance. The race has rules (e.g., determining the number of laps to be run), but they are not very important. Each year, a few “confused” contestants start running in the wrong direction—because that is fun. This adds to the overall performance, but only if not too many contestants opt to do that.

The *Drag Bear Race*, like many performative competitions, has numerous vague standards about what makes a good performance. The competition has formal rules that give it structure, but the social goal of entertaining the audience gives alibi to transgress the official rules. Without formal rules, transgression would not even be possible. The judges make the final call as to how the combinations of winning according to the formal rules and giving an entertaining performance are weighted in the final analysis. Indeed, this is common to many reality television competitions as well, although we suspect that they have much more formal rules than are revealed to the viewers.

Delivering a good performance is a social goal for the contestants in many performative games. It would be easy to ignore and leave out such edge cases of games, but their ambiguity between theater and games is revealing of the alternative goal structures that games can be made to carry. Games can be used for health, to motivate athletics. They can be used for education, war, reflection, and science—and in such cases, the social rules relating to the assigned function of the game trump the game rules. Indeed, when games are appropriated for other uses, such as art, their impracticality may become the point of a piece.

4 External Regulation

Johan Huizinga (1938/1955) described play as a free activity, standing consciously outside ordinary life. The freedom of play from outside influences has been considered variously as a normative ideal, an aesthetic ideal, and an essential property of play. The unfortunate reality is, however, that every player seeking to set apart a *magic circle* (see box: “The magic circle of play”), a time and space for play, may do so only at the leave of the surrounding society. The magic circle and the separateness of play are social contracts that require cultural recognition to exist. It depends on the surrounding society and culture whether some activity X counts as game Y in context C. Despite the engrossing properties of play, the play within the magic circle is not free.

While play and game scholars may wax poetic about the free nature of play, we are socialized to understand the societal limitations from childhood. The most common authority children encounter that regulates their play is their own parents, who seek to limit screen time or tell them to never play with matches.

Jaakko worked on a book documenting players’ memories of games and play, and parental control was a recurring

theme. Egg timers, in particular, emerged as a technology of parental control:

Our parents created different rules for limiting our game playing. Gaming was allowed for one hour a day. This rule was policed with egg timers, and we went through several over the years. Gaming was only permitted after one had spent an hour outdoors. Sometimes during the cold winter, I would stand still outside waiting for time to pass. When sometimes I did not have the time to play daily, I started keeping track of saved gaming hours. Soon it turned out that my parents did not think that it was possible to save game time. (Elina Koskinen, in Kultima and Stenros 2018; translated by the authors)

While playtime limitations are not specific to any particular game, these constraints influence the play that is possible and can lead to creation of social and formal rules on irregular termination of play. Parents are quite capable of creating and enforcing all kinds of rules, such as “you can play through this level, but then it is your brother’s turn.”¹ The power imbalance between parents and children has a clear impact on play, as parental authority can impose itself on the game world.

In this chapter, we take it as given that in games, we are never free of other social, societal, and cultural rule structures—it is not just the rules of the game that constrain our play but external regulation as well. This chapter is an exploration of the myriad ways in which external pressures affect games.²

Consent to Play

Legal scholar Greg Lastowka has discussed the relationship of law and play as follows:

Within games, rules of play serve both to liberate and to constrain the player. Thus, when the sumo wrestler enters the “magic circle”

The Magic Circle of Play

In the recent decades, the metaphor of the magic circle of play has been used in game studies to denote the boundary between play and ordinary life. Historian Johan Huizinga first introduced the idea when he wrote about the separation of play and ordinary life:

All play moves and has its being within a play-ground marked off beforehand either materially or ideally, deliberately or as a matter of course. Just as there is no formal difference between play and ritual, so the 'consecrated spot' cannot be formally distinguished from the play-ground. The arena, the card-table, the magic circle, the temple, the stage, the screen, the tennis court, the court of justice, etc., are all in form and function play-grounds, i.e., forbidden spots, isolated, hedged round, hallowed, within which special rules obtain. All are temporary worlds within the ordinary world, dedicated to the performance of an act apart. (Huizinga 1938/1955, 10)

The current usage in game studies comes through the formulation forwarded by Katie Salen Tekinbaş and Eric Zimmerman (2004; see also Zimmerman 2012), who discuss the magic circle as "shorthand for the idea of a special place in time and space created by a game."³⁴

The magic circle is not a disconnected realm, completely separated from quotidian life.³⁵ The separating quality of the magic circle is not about *isolation* but about *transformation*. Sociologist Erving Goffman (1961) discussed play as being surrounded by a *membrane* that has several boundary-maintaining mechanisms. One of these he calls *rules of irrelevance*: for the duration of play, the players forswear "any apparent interest in the esthetic, sentimental, or monetary value of the equipment employed." The token in *chess* is treated just as a token, whether it is made from gold or from wood. He also discusses *transformation rules*, which manage the meanings given to objects entering the magic circle.

Another formulation is offered by philosopher Kurt Riezler (1941), who put forward that the area of play is defined by its specific, cutoff meanings: “An area of playing is isolated by our sovereign whim or by man-made agreement. Things within this area mean what we order them to mean. They are cut off from their meanings in the so-called real world or ordinary life.”

Searle’s idea of constitutive rules explains the magic circle as a transformative boundary that contains endogenous meaning: “this piece of wood X has the endogenous meaning Y of being the white king in the context C of the magic circle of this *chess* game.”

Although the concept of the magic circle has faced criticism, the idea that play is somehow differentiated from the rest of our social existence seems intuitively necessary for the study of play. For example, there is a need to understand the reasons why we culturally consider a punch delivered in a *boxing* match very differently from a punch delivered on the street.³⁶

In terms of constructionist ludology, games establish domains of meaning through constitutive rules, and the magic circle of play is a rather overt context C. The original X does not vanish in context C, and thus everything in the magic circle carries one additional layer of meaning—the endogenous meaning. Of course, players are expected to adhere to the rules of irrelevance and disregard X, focusing on Y instead.

The magic circle is a *social contract*, a bounded space established by constitutive rules. The magic circle is always a socio-cultural construction, only possible within the structure of the outside society. The physical actions players carry out in play can also have repercussions *outside* the domain of play—although the contract may transform the way external society regulates those actions.

of the *dohyo* or the professional boxer enters the space and time of the bout, the rules of what social behaviors are desirable and forbidden are suddenly, radically changed. Violent and powerful physical attacks against another person, which are normally forbidden by law and social norms, become the obligatory and consensual mode of conduct. At the same time, polite and acceptable behavior—polite conversation—would be a gross breach of decorum. Game rules often reverse normal expectations in this way—this is part of what makes games appealing. As one court noted, “subjecting another to unreasonable risk of harm, the essence of negligence, is inherent in the game of football.” (Lastowka 2009)

In our society, participating in a game implies *consent*. A boxer consents to being hit in the face with a gloved fist, and a player of the party game *Twister* consents to getting within a very close physical distance with other players. As consent requires a certain understanding of what one consents to, some games can be hazardous: a reality television gameshow might not be able to maintain *informed consent* if there are surprise twists in the game.

In the game of *Nomic*, the players can establish whatever rules they want during the game. In theory, the players can vote to transform the game into any rule system they mutually decide, in a process meant to mimic real-world lawmaking. For instance, a game of *Nomic* could transform into a real-money gambling game, as in principle nothing is off the table. In freeform games, where players can change the rules or introduce significant surprising content, giving informed consent in advance might not be possible.

To protect people, society places all sort of restrictions on what kinds of contracts are binding and what kinds of consent are recognized. While dueling to death was sometimes legal even in the nineteenth century, contemporary society would press charges on the winner (Gardiner 2000, 103). While

a player might enter a contract or express consent, it does not mean that a court would uphold the contract or waive a liability.

The limits to legally acceptable behavior within a game are not only set out by the explicit rules of the game but also by the practices of play. Game scholars Ren Reynolds and Melissa de Zwart cite a Canadian case³ on what kinds of violent acts are considered part of the game. They quote the court:

It is clear that in agreeing to play the game a hockey player consents to some forms of intentional bodily contact and to the risk of injury therefrom. Those forms sanctioned by the rules are the clearest example. Other forms, denounced by the rules but falling within the accepted standards by which the game is played, may also come within the scope of the consent. (Quoted in Reynolds and de Zwart 2010)

As the “accepted standards” mentioned here signify, it is up to courts to decide the limits of the magic circle.⁴ It appears to us that our societies grant established sports more leeway than they would give to unprecedented playful arrangements: consenting to a potentially dangerous match of heavyweight *boxing* is possible, but it is not clear if we would tolerate a reality television competition inflicting similar risk of physical damage on its participants. Dangerous sports use licensing systems as a legal strategy to ensure that participants are sufficiently competent and know what they are getting into, which is not possible for nonestablished activities.⁵

This contractual stance assumes that players consent to certain behavior that takes place in the game. To return to an example from the discussion on social rules, it is hard to argue that participating in an online shooter game would imply consent to *teabagging*. Whether society should classify tea-bagging as sexual harassment⁶ and issue fines on teabaggers is a political

question—but it is hard to argue that the practice would have been justified through consent. This might change over time: issues of consent often depend on cultural and societal understanding of what is acceptable as a part of a game.

Legal Regulation of Games

Perhaps the most significant contemporary legal struggle over game rules concerns games involving real money, particularly games that involve both money and luck. In the Finnish legislation, for example, *games of chance* and *games of skill* are regulated differently. This is important, as the gambling monopoly is held by the state, and it is simply illegal for someone to operate slot machines, no matter how much the players would agree or consent to playing them:

Gambling refers to pools, bingo, tote and betting games, money and goods lotteries, casino operations and other similar games and activities where winning is completely or partially dependent on chance or events beyond the control of the participants in the game or activity and where the possible loss is clearly disproportionate to the solvency of at least one of the participants.⁷

The distinction between games of chance and games of skill is difficult to uphold in practice. Although the game of *rock-paper-scissors* produces unpredictable outcomes, it has no element that would not be perfectly controlled by the players. While no random generators are involved, the simultaneous choices lead to unforeseeable outcomes.⁸

On the other hand, despite the randomness of every singular instance, the game of *Texas hold'em poker* is predictable in the long run to the point where some professional players reliably win enough to enrich themselves with the game. *Chess* is generally not considered a game of chance, but the outcome

of an individual match is still sufficiently uncertain to warrant championship matches that consist of multiple games between the finalists.⁹

From the perspective of external regulation, a ludological opinion on whether something constitutes a game of chance or a game of skill is an academic venture. In practice, legislators and courts make determinations on what is a game of chance, and legal arguments carry more weight than philosophical ones. In 2018, the Dutch gambling administration Kansspelautoriteit determined that video game *loot boxes* constitute gambling, if their contents can be traded and if they have aftermarket value (see figure 4.1).

The study revealed that four of the ten loot boxes that were studied contravene the law. The reason is that the content of these loot boxes is determined by chance and that the prizes to be won can be traded outside of the game: the prizes have a market value. Offering these types of gambling to Dutch consumers without a license is prohibited.¹⁰

The Dutch legal interpretation was overturned in 2022, in another shift to the game rules. At the same time, the neighboring country of Belgium adopted a similar legal interpretation, determining that paid loot boxes containing tradeable rewards count as gambling (Xiao 2022).

As national officials make their separate decisions in different regions, players end up playing the same game with different rules. Some players of a multiplayer game can have a legal access to loot boxes, while others do not.

Another example of a society considering a game legally acceptable, but still forcing it to change individual rules, is the 2001 case where golfer Casey Martin sued the *PGA Tour of golf*. The Supreme Court of the United States had to determine whether the rule requiring the players to walk the distance

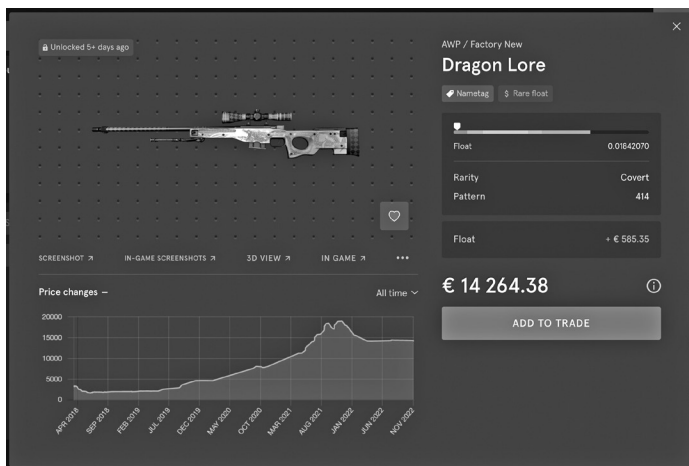


Figure 4.1

If rewards can be traded for real-world currency, they have not only endogenous but also exogenous value. Exogenously valuable rewards are subject to stricter regulation than ones that are locked to game accounts. In *Counter-Strike: Global Offensive*, loot box rewards have unique random properties that can make them very valuable. This skin, sold on website *CS.Money*, is in “Factory New” condition, as expressed through the float value, and it has the texture pattern number 414 out 1000. The most expensive skins can be valued at hundreds of thousands of dollars. Screen capture: Markus Montola.

between shots violated the Americans with Disabilities Act. Justice Antonin Scalia argued that all game rules are arbitrary, and it is impossible to distinguish whether some of them are “essential” to the sport while others are not.

But since it is the very nature of a game to have no object except amusement (that is what distinguishes games from productive activity), it is quite impossible to say that any of a game’s arbitrary rules is ‘essential.’ Eighteen-hole golf courses, 10-foot-high basketball hoops, 90-foot baselines, 100-yard football fields—all are

arbitrary and none is essential. The only support for any of them is tradition and (in more modern times) insistence by what has come to be regarded as the ruling body of the sport.¹¹

Justice Scalia clearly argued from the position of formalism. A game is a set of rules, and it is formally difficult to argue that one rule would be more essential than another. From a design perspective, on the other hand, it is somewhat simple to state that the outcome of *golf* is hardly ever determined by players' ability to walk on the course between their shots, and thus it appears that the rule is not essential to the game. Warren Fraleigh (2003) writes,

A central point that inherent in the structure of sport qua sport is the contesting and pursuit of excellence in *rule-defined skills*, and that this is a basis for us to ascertain acceptable actions. In short, actions that support and maintain contesting the rule-defined skills that test the relative excellence of the participants are acceptable, and those that reduce or negate the contesting of those same skills are unacceptable. (Fraleigh 2003)

The question is how and to what purpose an external party—a court of law or a philosopher of sport—can discern some essential core for a game or separate essential rules from auxiliary rules. Are there some *constitutive skills* (see Torres 2017) that are essential for a sport, and is it more constitutive for the *central lusory project* of *golf* to be able to hit the ball with a club than to walk the distance between shots?¹²

Unlike the *PGA Tour*, other sports bodies, such as the *chess* federation FIDE, have taken more pragmatic approaches. While the *Laws of Chess* provide specific stipulations on how the pieces are moved, they also have provisions allowing players with disabilities to participate. It seems that FIDE has determined that the constitutive skills of *chess* are mental, not physical.

Rules Invoking the Law

The interaction of law and rules is not always based on the legislation imposing its power over a game being played. Sometimes games deliberately invoke the power of legislation to be imposed on their players. The tools of society are more powerful than constitutive game rules.

It is increasingly common, especially as games have been moving from being products to being services, that the game makers draw upon external regulatory structures to control their players. This is the case of a game requiring players to sign an end-user license agreement in order to be allowed to play the game. The EULA provides legal means for banning abusive players, limiting players' interactions in the game, and preventing undesired behavior. The clauses in end-user license agreements can include anything from agreeing not to use profanity in chatrooms within the game to promising not to trade virtual goods for real money.

The way these clauses are positioned as contractual agreements instead of being simple game rules is important for several reasons. Importantly, the purview of game rules is typically assumed to be limited to a single instance of a game, but end-user license agreements can be used to establish a possibility of stricter punishments, such as liability for damages, termination of accounts, and lifetime bans of players. For instance, in the *World of Warcraft* Terms of Use,¹³ Blizzard Entertainment has assumed the power to declare lifetime bans to players—relying on the mandatory contracts to quash the romantic notions of games being autonomous zones isolated from ordinary life:

VI. Consequences of Violating the Rules of Conduct.

Blizzard Entertainment may, in its sole and absolute discretion, take whatever action it deems necessary to preserve the integrity

of World of Warcraft. Violation of any of the Rules of Conduct set forth above may result in actions being taken by Blizzard Entertainment, effective immediately or at a time determined by Blizzard Entertainment, which may include without limitation: . . . Temporarily or permanently suspend, or terminate, your access to an Account that you use to access the Service. Without limiting the foregoing, Blizzard Entertainment retains the right to decline service to any user who violates the BNET TOU, the Terms of Use and/or the EULA.

In addition to invoking the law, rules can also *incorporate* legislation. The *World of Warcraft* Terms of Use required the player to agree to a clause that declared that undertaking illegal actions also counts as breaking game rules in the context of the game:

You agree that you will not . . . whether intentionally or unintentionally, violate any applicable local, state, national or international law or regulation in connection with your use of World of Warcraft or the Service.

While this language appears to be just common sense, it is interesting from the perspective of ludological ontology. As *World of Warcraft* is played all around the globe, this clause incorporates most of human legislation into the game rules in one fell swoop. It also places players under endless different rulesets depending on their geographic location. It is likely that no one human being can understand the full scope of what constitutes breaking that rule. Virtual worlds are not separate from the “real world” but normatively governed by numerous rules, regulations, and laws.¹⁴

An ethical problem with incorporating all applicable legislation is that Blizzard Entertainment also incorporates all oppressive legislation from authoritarian countries where *World of Warcraft* is played. Depending on where the player is playing, it can be literally against the rules to criticize

government or to express homosexuality in the game. From the point of view of governments, games are contexts that need to be governed, and while they may have leeway in relation to some regulation, there are always limits. For example, in 2020, the cute island simulation game *Animal Crossing: New Horizons* was removed from sale in Hong Kong due to prodemocracy messages that players were spreading using the game's pattern creation tool.¹⁵

Many EULAs of multiplayer online games include a requirement to *play* (Reynolds and de Zwart 2010). The license agreement grants the user the right to use the system only to “play the Game.” For example, in *EVE Online*,

Upon establishing a valid Account, and subject to your continued compliance with the EULA, CCP grants you a limited, non-exclusive, revocable license to access the System, and to access and use the Game Content and User Content (each as defined below), in order to play EVE online. You may download (and, to the extent permitted by the System, make a single copy for your own purposes in playing the Game) and exchange Game Content and User Content exclusively via a valid Account, solely to play the Game, for purposes permitted by, and in a manner consistent with, the EULA.¹⁶

In addition, *EVE Online* “accounts may not be used for business purposes.” This requirement of playing is philosophically and ethically interesting; can *EVE Online* be played for research purposes? Reynolds and de Zwart (2010) conclude that while researchers are paid to play, they are like professional athletes—their paid play still counts as play. Even so, the definition of “play” ultimately rests with the court.

Players' Rights in Games

External regulation invoked through EULAs serves the needs of the people selling the game as a service. Is there comparable

external regulation siding with the player? Over two decades ago, game designer Raph Koster was thinking about this from the points of view of a player and a designer. The third article of his manifesto “Declaring the Rights of the Player” reads,

The principle of all sovereignty in a virtual space resides in the inalterable fact that somewhere there resides an individual who controls the hardware on which the virtual space is running, and the software with which it is created, and the database which makes up its existence. However, the body populace has the right to know and demand the enforcement of the standards by which this individual uses this power over the community, as authority must proceed from the community; a community that does not know the standards by which the administrators use their power is a community which permits its administrators to have no standards, and is therefore a community abetting in tyranny. (Koster 2000)

Koster was writing at a time when online activities and virtual worlds were often conceived as somehow ontologically separate from the everyday offline world. This view later fell out of fashion, but we can approach this as an argument about good governance. The mere fact that Koster felt a need to make such a declaration shows that these rights do not exist. The principles of transparency and accountability are not legally binding.

As Koster also points out, legislation protecting people does extend to virtual worlds as well. For example, slander, theft, discrimination, and harassment do not automatically become acceptable in a game context. The legislation on such topics is mediated by the context of a game as depending on whether those actions can be construed as being part of the game.

If we look at increasingly serious and professionalized games, the stakes get higher. Players’ rights become relevant for careers and livelihoods. In professional sports, individual disputes are sometimes escalated all the way to courts. In

sports, the necessity of impartial dispute resolution has been recognized since the 1980s. In 1983, the International Olympic Committee (IOC) officially ratified the statutes to establish the Court of Arbitration for Sport (CAS) in Lausanne, Switzerland, which was later reformed to be also independent from the IOC.

CAS hears both commercial and disciplinary cases. For example, if an athlete is disciplined for a doping violation by the World Anti-Doping Agency (WADA) (see figure 4.2), they can appeal to CAS and have impartial arbitrators resolve the case, based on both applicable sports law and CAS case law. For an athlete, the importance of being able to appeal to an outside body can be life-changing, as sanctions imposed for doping violations can make the athlete ineligible to compete for several years. For a third violation, the athlete can be penalized with a lifetime period of ineligibility.¹⁷

Commercial Control as External Regulation

In sports, the athletes can appeal their cases to the Court of Arbitration for Sport, meaning that external regulation is used to protect athletes against the tyranny of referees and administrators. This is in stark contrast to the situation in esports, where such protections are largely missing.

As no one owns *football*, it is regulated through federated democratic processes, as flawed as those might be. As Valve controls *Counter-Strike: Global Offensive* through *executive ownership* (Karhulahti 2018), e-athletes have little say even collectively in how the game is managed and why.¹⁸

The differences between the sports law systems, largely created by sports federations, and the contractual systems governing the esports, created by the companies operating esports



Figure 4.2

The World Anti-Doping Agency (WADA), headquartered in Montréal, Canada, is a key site of external regulation of sport. Established in 1999, WADA is an international agency that works toward “doping-free sport.” Its primary role is to uphold the World Anti-Doping Code, which “harmonizes anti-doping policies, rules and regulations within sport organizations and among public authorities around the world” (WADA n.d.). Photograph: WADA.

games, are striking. For instance, Valve answers the following frequently asked questions¹⁹ about its Valve Anti-Cheat system:

Can I appeal my VAC ban?

No. VAC bans cannot be appealed. If a VAC ban is issued incorrectly it will be automatically removed after investigation, but Steam Support does not manually remove VAC bans applied to accounts for any reason.

I was not using my account when it was VAC banned. Can the ban be removed?

No. Regardless of who was using the account at the time of the infraction, VAC bans are permanent and will not be removed. While we understand this can be frustrating, we must maintain a zero tolerance policy for cheating to foster a fair game that all players will enjoy.

From the perspective of sports regulation, the Valve policy of lifelong bans, for first infraction, without appeal, is unthinkable. In one better-known case, Elias “Jamppi” Olkkonen received a lifetime ban at the age of fourteen.²⁰ He tried to leverage external regulation against Valve by suing the company for damages in a Finnish court but lost the case.²¹ Eventually, a Valve rules change rehabilitated Olkkonen: while VAC bans are still life sentences with no appeal processes, they now “only disqualify a player from an event if it was either received less than 5 years prior” or if they were “received at any time after their first participation in a Valve-sponsored event.”

This difference in legal protections of players underlines how the wider society considers esports a commercial venture, a conception opposed to the idealist ethos of sports being governed by federations of athletes. The development of fair governance in sport can even be seen as an important step in the *sportification* of an activity. As sports historian Allen Guttmann writes,

Except for anomalies like baseball and American football, every major modern sport has its international organization which, in turn, supervises dozens of national affiliates. The first of these was the Union Internationale de Courses de Yacht (1875). (Guttman 1978, 46)

Indeed, it seems that while external regulation by international associations of athletes plays an important role in modern sports, the contemporary esports are replacing those functions with power of ownership and technological control.

Games scholar Veli-Matti Karhulahti refers to a criterion in the definition of sport set forth by the Global Association of International Sports Federations,²² stipulating that “the sport should not rely on equipment that is provided by a single supplier,” and states,

When it comes to the ongoing negotiations concerning the cultural politics of esports and sport, the foremost conflict does not concern any of the oft-debated aspects of physicality, technology, or media-specificity, but rather executive ownership. Esports products are, without question, forms of sport as per their nature of competition, skill requirements, physical precision, and ethical aptness. However, what makes them challenging for the historians and theorists of sport (and media) is reflected in Sport Accord’s fifth criterion: “The sport should not rely on equipment that is provided by a single supplier.” (Karhulahti 2018)

The idea is, Karhulahti discusses, that although commercialized institutions such as the NHL can prevent players from participating in the league, they cannot control players’ access to the sport of *ice hockey* itself. At the same time, esports are at the mercy of the executive owner, as was displayed when Blizzard unilaterally terminated the *Heroes of the Storm* tournaments, making it impossible for e-athletes to continue their careers with the game.²³

Based on how commercial interests and external regulation apply to sports and esports differently, we believe it is necessary

to also call into question what Karhulahti calls their “ethical aptness.” As long as an executive owner acts as the judge, the jury, and the executioner, it is questionable whether the activity can be considered a sport. It may be impossible to protect players’ rights fairly in a system run by an executive owner. If so, proper sportification may require the digital game to be established as an open-source project run by a player federation.

The cases of avatar rights and the lacking protections of e-athletes illustrate how external regulation does not only limit play but can also protect it against the surrounding society—for instance, against the pressure of commercial interests.

Moral Judgment as External Regulation

While law imposes formal regulation on games, informal, softer regulation exists as well in the form of morals and norms. Although it is less imperative than legal regulation, the soft power of moral judgment can sometimes be even more constraining than legal regulation. For instance, preventing undesired content from appearing in games can be constitutionally impossible through lawmaking, but the soft power of peer pressure, boycotts, and social condemnation can make it very hard to create undesired games.

Moral control of play is a very old phenomenon, and it has been based on a myriad of arguments: games have been seen as forms of laziness, frivolity, and indecency, and numerous genres such as gambling games, violent games, and role-playing games have been targeted by moralist arguments. The initial soft power of moralist pushback is sometimes channeled into legislation (see figure 4.3).²⁴

For instance, the puritan Philippe Stubbes not only condemned various games of luck but also wrote the following in



Figure 4.3

Cockfighting, originating in Southeast Asia, has been practiced widely around the world for thousands of years. In the blood sport, specifically bred gamecocks are pitted against each other, sometimes equipped with metal or bone spurs (Britannica 2022). The picture here, *The Cockpit*, is from 1759. Rules for *cockfighting* were published, for instance, in John Cheny's 1743 *Racing Calendar* (Middleton 2003).

Out of the nineteen rules, only six address how the cockfight is to be conducted and the appearance of the birds. The rest of the rules regulate the behaviour of the spectators, specifically gambling, the conduct of the audience, when to eject unruly onlookers from the site, how to settle disputes and ensure seating for better classes, and how to fine malefactors (Middleton 2003). "It is notable that seven of the rules regulated the gambling, including the method, timing, and laying of bets, as well as settling lost bets—for which any bad payers were strung up in a basket suspended from the ceiling and subjected to ridicule—perhaps the most appropriate response, since gambling debts were not recoverable under the law." (Middleton 2003)

The development of *cockfighting* rules had an impact on other sports as well (Vamplew 2007). *Cockfighting* was banned in England and Wales in 1835. The practices did not fully cease. Picture: William Hogarth/ The Met.

The Anatomie of Abuses about the rougher forms of football of his era:

Any exercise which wtdraweth vs from godlines, either vpon ye sabaoth, or any other day els, is wicked & to be forbidden. Now who is so grosly blinde, yt seeth not, yt these aforesaid exercises not only wtdraw vs from godlines & vertue, but also haile & allure vs to wickedlnes and sin: for as cōcerning football playing: I protest vnto you, it may rather be called a fréendly kinde of fight, then a play or recreation. A bloody and murthering practise, then a felowly sporte or pastime. (Stubbes 1583)

Moral conventions sometimes also determine who gets to play and how; in contemporary Western societies, adults need to carefully frame their play activities in ways that render them acceptable as activities. Toy and play researcher Katriina Heljakka (2017, 2018) has analyzed how playing with dolls as an adult can only be acceptable if one frames the activity as a *hobby*. Even if the actual activity is doll play, it is more palatable to society when it carries the implications of collecting, photography, artistic activity, crafting, and design.

The societal attitudes toward playful activities obviously vary between cultures and over time. For example, laughing was perceived as malicious and aggressive, and thus impolite in public, in the United States during the eighteenth and the first half of the nineteenth century (Martin 2007, 20–26). Today, one way to diminish the embarrassment of being caught playing as an adult is to turn away from free play toward rules-based games. Game scholar Sebastian Deterding writes,

Games are highly institutionalized and conventionalized and as such easily signaled and recognized; they come prelegitimized with imputed motives of recreation, family quality time, and so on; they are designed to be highly absorbing, leaving little mental reserve to become self-conscious (compared to the many pauses and stops of free play); they are highly scripted, ensuring smooth

interaction and requiring little spontaneous creativity; and their rules offer established alibis for in-game actions. (Deterding 2018)

Today, games are socially acceptable, and even valorized way of spending time. Participation in games, following their rules, provides players with an *alibi* to act in ways that would not be legitimate in everyday life. However, some games continue to be questioned on moral grounds, and games can and do have elements that transgress against norms. Such transgressions can be accidental or intended. After all, transgressing against norms is a form of playfulness in itself.²⁵

In earlier chapters, we discussed how Searle builds social institutions from constitutive rules of the form “X counts as Y in context C”; *Monopoly* money counts as legal tender within the context of a game of *Monopoly*. But even while we are playing a game, *Monopoly* money still *also* counts as *Monopoly* money. A punch in the face in the *boxing* ring is not only a legal game move but also a punch in the face. In other words, “X still counts as X in the original context when it counts as Y in a new context C.”

Many norm-defying games rely on this idea—for instance, the game of “adolescent verbal assault”²⁶ in *The Dozens*. In *The Dozens*, adolescents insult each other in order to provoke the other player to aggression or quitting. Often the insults target the players’ sisters and mothers, and outrageous and gross insults can be quite powerful at angering the other player. Trading insults works specifically because the offensive attacks are *not just play*, even though they might count as legal game moves. A consensual²⁷ game of *The Dozens* is possible *not* because insults in play are not insults but because it is possible to consent to being insulted.

As another example, the video game writer Dia Lacina has criticized the digital action role-playing game *Horizon Zero*

Dawn for using Native American representations to portray a fictional culture, for cultural appropriation of a real world X in order to create an imagined Y in the context C of the game:

Horizon: Zero Dawn has been described as taking place in a world “where life has seemingly reverted to the tribal-like ways of the past” a phrase that erases how many indigenous peoples still associate as tribal communities and governments, and despite colonialist demands for assimilation, actively live their cultures in much the way they always have.²⁸

Although additional meaning is added to the symbols used in *Horizon Zero Dawn*, Lacina’s criticism underlines that no cultural or historical meaning of symbols is *erased* when using X to represent Y.

Similarly, a completely unproblematic set of Xs can be used to generate a Y that is found morally objectionable. When children point their fingers at each other to make guns and play games of imagined murder, it is not the physical element of pointing but the meaning in the context of the game that can make parents stop the play.

In addition to their representations, games may face moral judgment based on the *simulation rhetoric*²⁹ of their rules (Frasca 2003). The first versions of *Sid Meier’s Civilization* allowed societies to thrive in pollution, nuclear war, and climate change, through relatively inexpensive if diligent cleanup operations. The rules governing environmental destruction made it seem trivial to fix ecological damage caused by human civilization. Success in the game also required the player to adopt the logic of colonialism, embodied in the core pillars of the *4X strategy games*: exploration, expansion, exploitation, and extermination.³⁰

One of the strategies used to retain safety of play against moral scrutiny is *secrecy*. Although legal regulation is also sometimes avoided by playing in secret, with moral regulation,

secrecy often takes the form of confidentiality. People creating black humor with the party card game *Cards Against Humanity* often have implicit agreements forbidding players from repeating jokes created in play, or at least forbidding them to be attributed to individuals creating those jokes.

Secrecy can also be made formal and explicit, like in the larp *Inside Hamlet*:

RULE: WHAT HAPPENS IN ELSINORE STAYS IN ELSINORE

This is our way of saying that the experiences at Inside Hamlet are private and only for the participants. You are not allowed to take photos or describe the actions of other participants after the game. You can talk about your own experiences, but only in general terms. You may not describe specific scenes to people who did not participate. This is to give everybody the freedom to interact as much or little in any way they want, without the risk of those choices being described out of context. It also makes the game more exciting for people who might want to play it in the future.³¹

In a highly physical, sensual, and even sexual play of a decadent Danish court, this was intended to allow intimate play and to reduce the social pressure to do so (see figure 4.4). Secrecy protects not only the players but also the very *possibility of play itself*, in the case of games such as *Inside Hamlet*.

Due to the way law works, moral and legal regulations of play are sometimes intertwined. Greg Lastowka (2011) details several cases in which having cybersex in virtual worlds has had legal ramifications. If a couple has decided that sexting counts as cheating, does it matter that the interaction happens between avatars? Given that in some jurisdictions, the courts may consider evidence of adultery in divorce proceedings, exactly how close does avatar-based infidelity come to its real-life counterpart?



Figure 4.4

The larp *Inside Hamlet* portrays the burlesque court of King Claudius descending to debauchery and madness, as the internal strife rips the royal family apart. Played at the Kronborg Castle, where Shakespeare placed his *Elsinore*, the larp unfolds in three acts: Deception, Decadence, and Death. Most players adopt the roles of lesser nobles, unnamed in the original play, but their fates mirror the fates of the royal family and the dramatic arc of the play. (above) The decadent parties continue in the basement while a revolution rages outside. (below) Hamlet and Laertes duel as the Communists, led by Norway's Fortinbras, are at the gates. Photography is forbidden during the more risqué parts of the larp, to ensure that "What happens in *Elsinore* stays in *Elsinore*." Photographs: Eleanor Saitta.

Playing a game seems to liberate players from *some* moral constraints of society, but the license provided by the magic circle is far from a *carte blanche*. Lying in the social deduction game *Werewolf* seems to be usually acceptable, but in some situations, cybersex can count as adultery. This gets especially tricky when the point of the game is to toy with taboo-breaking behaviors: *Cards Against Humanity* is a well-known instigator of pushing the limits of good taste, where players create transgressive jokes trying to score points from other players, but someone can accidentally cross a line too far. Even the game developers have ended up apologizing and retracting some cards, including one that prompted players to make transphobic jokes.³²

Conclusion

Cultural contexts, gameplay practices, societal values, and legal environments are all moving targets, and the complicated and conflicting regulatory frameworks and cultural expectations cannot be fully stated ahead of time before gameplay starts. While entering a game can imply consent to suspend some rules of society, continuous negotiation is needed to understand which rules are suspended, how, and why.

Whatever power the magic circle of play has in liberating players from the societal constraints, it only applies to the degree allowed by that society. The outside world can place all kinds of restrictions on play and game content, and all manner of games have historically been restricted and banned by societies. Games involving gambling, intoxication, indecency, and violence remain topical examples of frequently regulated games. Many societies also restrict play on religious grounds.

At the time of writing, a recent example of new regulation is the Chinese crackdown on online video games that aims at

restricting minors' online gaming to three hours per week.³³ Indeed, minors are a frequently invoked group in justifying external regulation of play. To avoid being regulated by societies, games include rules requiring compliance with legislation, essentially integrating national legislations in their rule systems.

But the interaction of gameplay and external regulation is not that simple. It is not only about society regulating play and play occasionally liberating players from societal constraints. Often the regulation is motivated by harm reduction, protecting the players from harmful activities, excessive play time, malicious co-players, and predatory game companies. Players are protected from games—and themselves. Some regulation may be needed for play to be free.

Regulation also goes in the opposite direction with game operators reaching out to society to enforce game rules, particularly when significant financial interests are in play. The punitive apparatus of a formal game ruleset is simply insufficient for dealing with cheaters at the casino or athletes using doping in a championship tournament.

5 Material Rules

Up until this chapter, we have mostly discussed games as social institutions built from constitutive rules, as implicit and cultural agreements between players. This chapter takes us deeper into discussing how the intended rules are encoded into the brute materiality of the world. Very minimal out-spoken rules allow us to play this kind of games. For instance, these instructions were sufficient for playing the *Pong* (1972) arcade machine:

- Deposit quarter
- Ball will serve automatically
- Avoid missing ball for high score

Although this operating procedure barely covers the basics of the game, the players are able to learn and play the game, as the rules are materially encoded in the software and hardware.

Comparably, is it possible for us to understand how the ancient Egyptian board game *Senet*, dating back to 3100 BCE, was played? While physical game sets and images of gameplay have been discovered, no written account of the rules of the game has been found. Almost everything we know about the rules of *Senet* is conjecture based on what is materially encoded in the discovered artifacts (see figure 5.1). If we only have access to the game as a material artifact, it can be impossible



Figure 5.1

Partial physical *Senet* board discovered in a tomb at Abydos. The board is dated around 1550–1295 BCE. The pictured board is a restoration; it contains the surviving faience inlays alongside modern copies in a new wooden box. Photograph: The Met.

to reverse engineer its formal rules. Indeed, even with formal written rules, it can be hard to re-create the playing of an ancient game, since the cultural context and its impact on social rules and the external regulation have changed.

In board games, many of the typical material implements only have a representational function: the battleship on the *Monopoly* board indicates that “you” are “visiting” the “Free Parking.” In other games, the connection between the rules and the material affordances of the implements is much stronger. For example, in *basketball*:

For all women’s competitions in all categories, the circumference of the ball shall be no less than 724 mm and no more than 737 mm (size 6) and the ball shall weigh no less than 510 g and no more than 567 g.¹

This formal rule illustrates what kind of a ball can be used as a material representation of the rules. According to this rule, the ball used in the women's competition must weigh precisely 510–567 grams. The ball is not a constitutive rule, but the constitutive formal rule cited above is encoded into a rules-approved brute object X for it to count as a legal ball Y in the game of women's *basketball C*. The ball is crafted or selected according to the rule, thus making it a material representation of the rule. Afterward, the ball can be measured and evaluated to confirm that the formal rule has been correctly represented.

It is only possible to materially embody rules that are possible to implement with the materials that we possess. For example, games featuring a bouncing ball were not possible in Europe before early sixteenth century, when the first Aztec rubber balls were brought from Mesoamerica (see Tully 2011). Indeed, popular science writer Steven Johnson (2016) has written about the astonishment of the Europeans when witnessing the miraculous bounce of a rubber ball. The Mesoamerican civilizations vulcanized rubber a few thousand years before Charles Goodyear, and archeological findings tell us that a game using a four-kilogram solid rubber ball has been played at least since 1400 BCE.

If we are unable to engineer or source a ball that bounces, then we cannot create games that have rules that are materially embodied in a bouncing ball. This is the reason why certain fictional games remain in the realm of fiction. *Quidditch* of Harry Potter books, described by J. K. Rowling (1997), is a competitive team sport played by two teams of seven players on a flying broomstick. The game also requires four independently flying balls. While we can roughly understand the rules of *Quidditch*, and the game has been imitated on ground, we currently lack the ability to construct flying broomsticks.

This chapter addresses the relationship between game rules and the material implements and settings of play. We seek to understand the materiality of rules (i.e., how game rules are materially embodied), both in cases where they are explicit representations of formal rules and in cases where they are implicit but necessary conditions for playing by the rules.

Digital “Games”

Physical artifacts used in play that are not attached to systems of constitutive game rules are generally called *toys*. Even so, digital game classics such as *Pong* are still often called games, even if they do not come with formal, constitutive rules. Game scholars Stephanie Boluk and Patrick LeMieux (2017, 8) have cheekily claimed that the “greatest trick the videogame industry ever pulled was convincing the world that videogames were games in the first place.”

Although digital games like *Pong* do not come with constitutive formal rules, there are three likely reasons they are called games. First, they operate based on algorithmic rule-sets. Materially encoded brute facts count as rules in general parlance, although they are not formal rules that are upheld socially. The material rules imply that they are an expression of formal rules, like the ball in *basketball* is a material expression of formal rules. Such constitutive formal rules do not exist for *Pong*; computers are not conscious or social entities, and they have no capacity to interpret rules. But digital games are created in a process where design intent is encoded in algorithms using formal languages, which are then compiled into binary executables that operate the game as material rules. This process of encoding is comparable to the process where constitutive formal rules are used to enable play.

Second, digital games are surrounded by an implicit set of understandings on how games are generally played in our culture. When the quarter is deposited so that the ball will serve automatically, it implicitly counts as the beginning of a game in our culture. There are social norms that limit how games are to be played, such as “you should not tamper with the algorithm to make winning easier.” Without such a system of rudimentary rules and especially the associated norms, some actions could not count as cheating. It is not possible to cheat a toy, but it is possible to cheat in a game.

Third, the players of digital games also need to construct and constitute the game in their minds. Game designer Brian Upton argues that while digital games impose their limiting constraints (rules) on the player, the player does also internalize them:

Consider a sewer level in a typical action game. The slime-covered wall are a system of constraints that limit free movement through the space. If you run up against a wall, you stop. The game will not allow you to move further. But players rarely collide with the walls. The walls form a system of constraints, but players don't interact directly with it. Instead, they move through the space in such a way that they avoid obstacles before they collide with them. They have created an internal representation of the level inside their heads. (Upton 2015, 29)

Upton (2015, 118–119) further notes that players do not need to learn exactly how digital games function to come up with a working hypothesis, “a completely different rule set that produce[s] similar outcomes.” He uses the line-of-sight checks between the player avatar and the enemy with the polygons that make up the world of the game as an example. Players need not understand how exactly the algorithm works to construct a mental model of the enemy “seeing” the player

avatar and “alerting” help. Knowing the rules in a digital game does not mean that a player actually understands the algorithms or the underlying formal rules but that they have a sufficiently equifinal understanding of the materially embodied rules to play.

Game State and the Material World

The formal accounting of a situation in the game has been termed *game state*, comprising all the information relevant to that situation—whose turn it is, who controls what, where the pieces are located, and so forth.²

Games relying primarily on formal rules can have formally exact game states. Although pieces cannot be restored to their exact positions on the board, they can be restored on the correct squares well enough to again represent the socially constructed game state. Anyone can sensibly re-create the game state and proceed play from that situation.

When *chess* is played on a chessboard, brute facts directly represent parts of the state of the game world. The constitutive rules of *chess* declare how the physical pieces must be set up for their arrangement to count as the opening position in the context of the game. Moving a brute piece counts as an *act of moving a piece* in the formal system of *chess*.

Imagine a player accidentally trips over the entire *chess* board. Such physical disturbance does not actually count as a legal game move in the formal rules, and the earlier situation must be restored before play can proceed.³ But when a player performs a legal move according to the precise procedures of the game, the players consider the formal game state changed.

Another example comes from the miniature game *Warhammer 40,000*. Although painting miniatures and building

physical armies is an essential part of the hobby, the game rules nevertheless imply that there is an “actual” game world more relevant than the material world of the miniatures.

Sometimes you may find that a particular terrain feature makes it hard for you to place a model exactly where you want. If you delicately balance a model in place, it is very likely to fall as soon as someone nudges the table, leaving your painted model damaged or even broken. In cases like this, provided it is still physically possible to place the model in the desired location, you may find it helps to leave a model in a safer position, so long as both players agree and know its ‘actual’ location.⁴

From a Searlean constructionist perspective, games are played simultaneously in two worlds: in a socially constructed world of formal rules and in the brute world of physics, and depending on the game, one of these worlds is considered the one that truly defines what is going on in the game (see figure 5.2).

The idea of an exact game state ignores the materiality of the gaming situation and the embodied player. Thus, the concept is not very useful for physical games: reproducing a specific situation from a *football* game is impossible, as the mental and physical state of the players is critical for the play situation. Indeed, the idea of an exact game state is most useful in connection with digital games and board games, where the information required to restore a game state can be written down on paper or stored in a file. Competitive games employ referees to determine how brute materiality translates into social constructions: Whose “body” crossed the “nearer edge of the finishing line” first? Did the “whole of the ball” pass the “goal line”?

Rules often place requirements on the material circumstances under which they can be played. The *ITF Rules of Tennis*⁵ specify five categories of surfaces on which the game of tennis can be played, including clay, grass, and carpet, because the surface



Figure 5.2

It is fully possible to maintain the game state of *chess* in your memory. In this engraving from 1794, François-André Danican Philidor is playing *chess* blindfolded. This arrangement demonstrates the secondary nature of the material game board in *chess*. You can play *basketball* blindfolded, but even if you do, it is the physical location of the ball that really counts. Illustration: Wellcome Collection.

has a major effect on the speed and bounce of the ball. The rules of *ski jumping* task juries to evaluate wind conditions for fairness and safety.⁶ *Basketball* assumes gravity; playing a game on a space station would be very different as a ball that has gone “up” would not come “down” (see figure 5.3). A legal *tennis* court X counts as a court Y in the game of *tennis* C.

Compared to the controlled environment of *tennis*, *Dakar Rally* is in the very opposite end of the design space. While the former is contained in the rules-abiding ritual grounds of a *tennis* court, the off-road racers of *Dakar Rally* traverse thousands of kilometers of rough terrain, crossing deserts, hills, mud, and other obstacles, sometimes in extreme weather. Navigation is



Figure 5.3

Game rules assume environmental conditions, such as gravity. Games played in orbit effectively do not have the same rules. Here astronaut Frank L. Culbertson Jr. plays with a miniature *basketball* on the International Space Station in 2001. Photograph: NASA.

an actual challenge; in a famous 1982 case, Mark Thatcher and his team went missing in the Sahara. The son of the British prime minister and his team were only found after a six-day search.⁷ While *tennis* carefully accounts for five types of surfaces, *Dakar Rally* accepts the challenges of brute reality and declares them a readymade playground.

In both games, the material environment of play is critical. The “surface” on which the play takes place is a material embodiment of the rules (figure 5.4). The landscape of the rally is found and adopted, and the *tennis* court is carefully crafted according to the rules.⁸

When materiality of the playing environment is treated as an element of rules or dictated by rules, the implicit status



Figure 5.4

In climbing sports such as *bouldering*, the readymade material world is encoded into formally defined playgrounds through *acts of play*. In order to establish a *boulder problem*, an athlete needs to successfully climb a previously unclimbed route. The social code of the sport dictates that whomever performs the first ascent gets to name the new problem and also to suggest a difficulty grade for it. According to Hardclimbs.info website, it took Nalle Hukkataival over three years and over 4,000 attempts to climb this route in Lappnor, Finland, before finally succeeding in October 2016. The successful ascent only took some forty-five seconds. He named the problem *Burden of Dreams* and graded it 9A/V17, declaring it to be the hardest boulder problem in the world, unparalleled in difficulty. For the first six years after the problem was established, we only had Hukkataival's word on the grading: a climber is only allowed to opine on the difficulty after a successful ascent. Photograph: Blue Kangoo Films, a press photo for *The Lappnor Project* documentary film.

hierarchy of various series and leagues is noteworthy. For example, under the rules of FIFA, women's *football* teams sometimes have to play on artificial turf, while men's games are played on grass. An artificial field can embody a legal playground in *women's football* but not in *men's football*.⁹

Discussion on game states often assumes a self-contained game system disconnected from the world around it and sees the player as only an abstraction. The game instance might exist in a larger tournament setting, the social situation where the game takes place can have an important impact on the game (consider bluffing in *poker*), or the financial standing of the player might be an issue (as in free-to-play games). An exact state thus assumes that there is no *metagame* (i.e., how the game interfaces outside of itself; see Garfield 2000) around it. Game state can be a useful analytical tool, but it has severe limitations as it ignores the player, the context, the culture, and everything else that cannot be easily quantified.

Code as Law

Earlier, we decided to use “formal rules” as shorthand for the intended, encoded, and interpreted rules. In digital games, algorithmic game rules often start as procedures intended by a game designer that are then coded into formal languages by programmers and finally materially encoded into running software by a compiler. Although the initial implementation of intended rules only sometimes matches the intended rules of the game, through a complicated process of testing, fixing, and iteration, the encoded algorithms end up producing the intended results well enough.

It is typical for digital game researchers to discuss game algorithms as game rules.¹⁰ While the temptation to classify them as

formal rules is obvious, the approach based on constructionist ludology necessitates them to be distinguished clearly. The ontological difference between rules in digital and nondigital games is recognized by many researchers.¹¹

Game algorithms stored in computer memory are material rules. They are not enacted through social contracts, but in the process where a rule is typed into code and compiled into a computer program, it becomes a brute fact (cf. Järvinen 2008; Woods 2009). For example, the rule that after Pac-Man collides with a power pill, the ghosts change color and flee away from him is an intentionally created brute fact materially embodied into *Pac-Man* (1980) arcade machines.

For example, this method is used to deal damage at characters in the mobile free-to-play game *Friends & Dragons*¹²:

```
public static int DealDamage(CharacterInstance
target, int damage, ICallbacks callbacks,
List<Death> deathQueue)
{
    if (target.isDead)
    {
        return 0;
    }

    callbacks.OnDamageDealt(damage, target.pos,
target.Id);

    int effectiveDamage=Math.Min(damage, target.
health);

    target.health -=damage;

    if (!target.isDead)
    {
        return effectiveDamage;
    }
}
```

```
ApplyDeath(target, callbacks);  
deathQueue.Add(new Death(target));  
return effectiveDamage;  
}
```

In this short piece of code, the game deals damage to a target. First it checks whether the target is still alive, as dead characters cannot be damaged. Then it sends a callback message to the visualizer to display a damage number at the target's position. After that, the target's health is reduced. If the target is dead after damage reduction, then the `ApplyDeath` function will perform some maintenance, most importantly removing the dead character from the board and telling the visualizer to display that change. The death event will be added to the `deathQueue`, which will soon be used to run further game effects, such as when the dying enemy explodes in a cloud of poison gas. Finally, the damage actually dealt is returned for further use, such as calculating health gained from life-draining abilities.

A number of observations can be made from this brief example on how computer code behaves in comparison to formal rules.

“Rules” are inseparable from feedback implementation. Although the technical infrastructure of *Friends & Dragons* has intentionally placed rule execution and player-facing visualization in different parts of the source code, they are still interlinked all the time. Adapting Justice Scalia's dilemma from the previous chapter, is it an “essential” or an “arbitrary” part of the rules that a floating combat text displays damage dealt to a character?

Materially encoded rules are exact even when it does not matter. In *Friends & Dragons*, it does not make a practical difference whether the health value of a dead character can be negative

or not, because dead characters are removed from the game board. Even so, a decision must be made over whether there is a lower limit of zero. Players have no way of finding out whether health can go negative or not—without reverse-engineering the code or reading this book.

Concepts exist that players are not aware of. Players do not need to know about the existence of a *deathQueue* that consists of *Death* objects to be unpacked after damage has been dealt. Players are told that a monster with *Poison Cloud* ability deals three *Poisoned* tokens to adjacent enemies when dying, without any need to go into specifics of the very exact ordering of how that effect works in relationship with monsters being removed from the board or how life-drain is being applied.

The likening of computer algorithms with formal rules usually only applies to a tiny fraction of the source code sometimes called the *game system*, the parts that determine visible and legible game-like properties of the product, such as jumping distance or weapon damage. At the same time, the majority of program code, from graphics rendering to telecommunication protocols, is excluded from the “game rules.” This view is held even though the details of the rendering engine might directly interact with the game system, for instance, when determining whether two objects collide or not. In fact, the telecommunication protocol of a multiplayer game might impact the gameplay far more than tweaking the amount of health points given for each character level.

Lawrence Lessig, a scholar of law, has discussed the materiality of rules in cyberspace:

In real space, we recognize how laws regulate—through constitutions, statutes, and other legal codes. In cyberspace we must understand how a different “code” regulates—how the software and hardware

(i.e., the “code” of cyberspace) that make cyberspace what it is also regulate cyberspace as it is. As William Mitchell puts it, this code is cyberspace’s “law.” “Lex Informatica,” as Joel Reidenberg first put it, or better, “code is law.” (Lessig 2006)

The game system, as implemented in code, is not “law” in the sense that it is external regulation but in the sense that in this context, it cannot be broken. While this idea is important to us, the code appears to be even more than law, a brute fact.

The game industry often treats algorithmic game rules as secrets. Damage formulas are not published on game websites, conference presentations are vetted to not reveal too many trade secrets, and it is up to the *theorycrafting* player communities to document rules based on their empirical experiments.¹³ As companies running games as services occasionally change rules in secret, there is a frequent race between communities and companies over whether the documented rules are accurate.

Material rules are not necessarily any more stable than formal rules. While players cannot usually change digital game rules, the game studios adjust the material rules with every game update. Players do not even always play with the same rules: game companies have practices like multivariate *A/B testing* or metrics-based *user segmentation*, where players are intentionally provided with different subsets of material rules. As a result, rules that once were the stable framework of gameplay are now in constant flux. Even when brute game objects are touted as immutable, the reality is rarely so simple (see box: “Blockchain games”).

Materiality of rules also calls into question whether anyone even knows the full rules of these games. In the previous examples, two players might have incorrectly thought that

Blockchain Games

At the time of writing, the most recent gaming hype revolves around *non-fungible tokens* (NFT) and virtual items that can be traded in *blockchain*. This represents an ideological pinnacle in an attempt to migrate game adjudication to material rules. The idea is that virtual items are stored as unique tokens in distributed peer-run cryptographic systems, and there can be unlimited transactions that even the game operator cannot regulate. You truly own the Sword of Dragon Slaying, no one can take it away from you, and you can sell it for a fair price to someone else if you wish.

For game collectibles, this system has clear advantages. Collectors can own and trade items even without playing the game, collectibles can be valued to their proper market price, and public ledgers allow full transparency over items in circulation. At the time of writing, many game operators are looking into taking a cut from every transaction where their non-fungible tokens change hands.

Much of the blockchain ideology does not translate into reality. Even if the ownership of the Sword of Dragon Slaying is anchored in the blockchain, the executive owner of the game can still alter its properties, adjust its visual representation, change the item to something completely different, or even remove the entire item from the game. The blockchain determines that you own a unique identifier, but the game operator still dictates what the identifier represents in the game, its endogenous meaning. The game operator still retains massive power over the material rules of the game, even when it has placed the material rules determining NFT ownership outside its control.

It is usually believed that it is in the selfish interest of the executive owner to maintain trust in the value of released NFT items, and doing arbitrary changes would undermine that trust. But even if in practice the NFT items remain stable, it is not the blockchain that guarantees their immutability—but the assumed self-interest of the game operator.

they were playing the same game with the same rules. Even on the studio side, due to long development periods, large teams, division of labor, and changes in personnel during the life cycle of a game, it is unlikely to have an actual human being knowing all the rules materially encoded in a digital game. Even if every line of code is typed in by human hands, code frequently does not match the intent of the designer or the programmer. Bugs lead to unintended functionality, and whether they are desirable or not, they are nevertheless brute facts of material reality that players need to navigate. We expect this to get even more difficult with the advent of AI-assisted programming.

Formal Competition through Material Games

It is important to make a careful distinction between playing a digital game, as such, and engaging in formally constituted competitions through playing digital games. In the former case, formal rules are not present, but in the latter, they are.

For example, getting your initials on the high score list of your local *Donkey Kong* arcade cabinet is a feat taking place entirely in the realm of material rules. Manipulate the device with sufficient skill, and it offers you an opportunity to determine the letters shown on the high score list. However, at the same time, a competition between people over making the best score of all time in *Donkey Kong* is typically defined as a set of formal rules over how the brute machines are to be operated.

While there are no formal rules governing the play of *Donkey Kong* as an arcade machine, the player must adhere to a significant body of formal rules to have their high score acknowledged by the record-tracking organization Twin Galaxies. For example, the submission must include video evidence of the play

instance, the evidence is evaluated by peers, and all games are to be played with original hardware.¹⁴

The way the brute systems of digital games are surrounded by both formal rules and implicit social norms introduces a blurry zone of normative ideas on how games should be played. In the original *SimCity*, typing the word “FUND” repeatedly on the keyboard can be used to give the player ridiculous amounts of money. While nothing formally determines this as cheating, and the presumable design intent was to allow players to play the game in a more free sandbox fashion, it still was discussed as a *cheat code* at the time.

At the same time, *Super Mario Bros* has a presumably unintended technical property—a bug—where jumping Mario, when he hits a wall, is pushed *backward* instead of being pushed *away* from the wall. This means that a highly skilled player can turn Mario around just at the right moment and be sucked backward into the wall, allowing him to pass through obstacles instead of jumping around them.¹⁵

Game scholar Rainforest Scully-Blaker (2014) argues that while players who compete at completing a digital game as fast as possible, *speedrunners*, trespass against the implicit rules of games, they cannot be considered cheaters, because they cannot break the explicit (material) rules of the games. He further notes that the speedrunners are often more familiar with the materially encoded rules than the designers of the game, and this kind of knowledge and skill are valorized in the speedrunning community and certainly not considered cheating in that context. Speedrunners compete in the materially encoded reality of the digital artifact, replacing the prescriptive ontology and other conventional social rules associated with the game with their own sets of speed-running rules.

Primacy of Rules

Based on her fieldwork in the *Starcraft* tournament at the *World Cyber Games* (WCG) grand final in Seattle 2007, sociologist T. L. Taylor (2012) describes a situation that happened between a Korean player Stork and Russian player Ex. At some point of the game, Stork made a game move utilizing what is known as the “Observer bug,” placing an Observer unit on top of an enemy turret while it was being built, with the result that the Observer would be safe from enemies inside the enemy turret while being able to detect enemy movements and circumvent the fog of war in the game. Taylor describes how the referees and the players argued the various sides of the situation, until it was determined that using the game move was an exploit, and Ex was granted a replay of the game. The situation was complicated by several factors, such as the use of the purported bug not being forbidden in the rules of WCG 2007 and that it had been explicitly allowed in some Korean tournaments where Stork had played before.

As Taylor’s example demonstrates, materially embodied rules can be in conflict with the other rule types discussed in this book, and these disputes need to be resolved. Sometimes the arbitration ends up favoring the primacy of material rules, but all other rule types can end up on top just as well.

In digital single-player games, cheating is hard to define. Game scholar Mia Consalvo (2007, 5) concludes that while certain activities (such as skipping levels or getting unlimited ammo) are often thought of as cheating, in the end, each player gets to “define cheating in their own terms,” placing the question of cheating in the domain of internal rules.

An important argument in the arbitration is the idea of *design intent* (see box: “Design intent”). The idea is that someone created this game, and it should be played as the creator intended.

Design Intent

Often when the reality of play surprises players or contradicts their expectations, the idea of *design intent* is used to argue for how a game “should” be. This typically happens when surprising results emerge from formal rules or when players perceive a bug in game software.

This idea, a close cousin of the *legislative intent*, establishes a practical fiction of an all-wise designer aware of all the mechanics, details, causalities, and dynamics of the game and a presumed aesthetic that goes with it.

The reality of video game development often highlights the constructed nature of design intent: in practice, there might be hundreds of developers working on a single game, writing code, making graphics, configuring systems, creating levels . . . with no single individual being able to keep track of everything that is happening, let alone establish some intent on how every detail should work.

In the realm of sports, however, intent—or *parentage*²⁸—of a rule is often easier to reconstruct. Just like lawmakers document their preliminary works in legal memos, sports federations have active and often public discussions on rule changes. Even so, we advise reader discretion whenever encountering the idea of design intent, as it is often impossible to determine any actual person whose intention would be discussed.

Sometimes the design intent is quite clear; when Nintendo’s team created *Super Mario Bros*, designer Shigeru Miyamoto presumably did not intend Mario to be able to enter walls by turning around midair. Sometimes, the design intent is obvious but still not heeded, like in *SimCity*, where the “FUND” command is clearly intentionally implemented but still considered a cheat code by most players (see also Myers 2010). In complex games, the idea of a “design intent” is a constructed ideal in

itself, as no designer can actively design or even consider all the ramifications of adding an element to a game as complex as *EVE Online* or *Magic: The Gathering*.

The analyses of design resemble the idea of philosopher David Hume's *is-ought problem*. Hume argued¹⁶ that we cannot derive how the world *ought to be* simply from the way the world *is*.¹⁷ This is tied to the idea of divine providence and how the world is as the Creator intended; by looking at the world, we see how it should be. While *Hume's Guillotine* is about the separation of is and ought in everyday life, the question is somewhat different in digital games. In digital games, there actually *is* a causal (although not a noiseless) relationship between what is and what was intended to be (Leino 2019).

Thus, in games, it can be argued that the brute reality of a game sometimes does reflect the way it should be played: if a *pinball* machine has a very sensitive tilting sensor, the player community might consider shaking the machine a morally unacceptable play move, but if the sensor is calibrated to accept some lifting and shaking, the players might construe tilting an acceptable tactic with its inherent risk and reward. Generally speaking, it would appear that digital game scholars often subscribe to the primacy of material rules, while sport philosophers tend to focus on the ethos of the game, trying to understand and define how a given game should be played.

It seems like digital games, at least when played in isolation, really are digital toys that the players use how they please. This is also reflected in the ideas of how digital games are best studied. Game scholar Espen Aarseth has argued that scholars should be expert players in the games they study:

Although expert and innovative play are always hard and sometimes impossible to reach, they do imply that the (successful) analyst has understood the gameplay and the game rules better than

others. A superficial cheater or a casual socialiser simply cannot be expected to reach a deep understanding of the games they examine. (Aarseth 2003, 7)

While this idea of *virtuoso play* has merit in relation to the ability to read and interpret a game and its ruleset, it is hardly the only path to insight (see box: “Virgin play”). It is also connected to the fact that a player of digital games does not know all the (material) rules of a game as they start playing. Instead of reading a rule book or following the guidance of a teacher, they simply start playing the game, which usually begins with a tutorial that teaches the basic functionalities of a digital game.

Indeed, from the perspective of the intention-providing game designer of the digital games industry, the typical target player is not an Aarsethian virtuoso but a new player trying to learn the game through guidance and experimentation. More video games are designed for *virgin play* than for virtuoso play, as the expected playtime is over far before virtuosity can be achieved. This is particularly true for free-to-play games, where the commitment and thus attention span of the player are very short. If players do not enjoy the game after a few minutes, they will stop playing for good.

However, Aarseth has gone even further and sees *innovative play* as the epitome of mastery in digital games. The moment when a player knows a game so well that they can transgress against it and use the unintended features is liberty:

These marginal events and occurrences, these wondrous acts of transgression, are absolutely vital because they give us hope, true or false; they remind us that it is possible to regain control, however briefly, to dominate that which dominates us so completely. (Aarseth 2007, 4)

Here the digital game is seen as a consciously created cage the player chooses to inhabit, and overcoming the intended

operations laid out by the creators and fully being aware of the materiality of the rules is not cheating but an escape. The ethos here is overcoming and using the system in an unintended way against the prescriptive ontology.¹⁸ However, this is a rejection of the intended constitutive formal rules and many of the surrounding social norms. As long as this activity happens in single-player environments, the player can choose to value materially embodied rules above all else. Nevertheless, in multiplayer digital games, negotiation about the primacy of the rules categories is bound to happen. Indeed, sometimes a new game emerges, where these existing materially embodied systems are used as the site for, for example, competitive performative trolling.

The Body as a Rule

The body also acts as a material embodiment of rules in games. This is true both in a general sense, as there are species-typical possibilities and limitations that bodies tend to have, and in a specific sense in relation to the body of particular player of a game. There is no standard human body, but game rules still tend to imply an ideal player. While this implied player has been discussed in the literature,¹⁹ mostly it has been in relation to the attitudes, interests, and activities of the player, not in relation to the body.

Games often test the capabilities of a body. Athletics contain obvious examples where strength, agility, endurance, precision, and balance are essential. Games can also test other capabilities of the body, such as mathematical skills, working memory, pain tolerance, and even charisma.

Play designer Bernard De Koven (2011; also 1978) has discussed how there are two ways to achieve what he calls *the well-played game*, a community that shares an idea of how they

play together and builds strong relationships with each other. The first way is by changing the formal rules of the game until every participant feels at home playing. The second way is through changing the players, molding their bodies and attitudes with physical and mental practice to fit the game.

Philosopher Hans-Georg Gadamer (1960/1989, 106) has noted, “The attraction of a game, the fascination it exerts, consists precisely in the fact that the game masters the players.” The body of the player is a limitation, a rule one pushes against. Metaphorically, it is an “unnecessary obstacle” (Suits 1978), since actual living bodies are particular and not ideal as implied by rules. This is evident in digital games as well. Playing a “perfect game” of *Pac-Man*, completing all the levels with full points, takes six uninterrupted hours for a master player. In such a task, the body of the player is very much in play.

In *boxing*, the body is the barrier of entry into the game, as players are divided into weight classes based on their bodies. The rules of the ritualized weighting events are precise and formal.

The player’s body also defines an end condition of a *boxing* bout. For instance, the contest rule E.11 of the World Boxing Association operationalizes the intent of determining whether a player is able and willing to continue the contest as follows:

If the downed boxer does not rise before the count of ten (10), he will be declared the loser by KO (Knockout), and the referee shall make it known by waving both arms.²⁰

As material embodiment, a player who does not rise before the count of ten counts as a player who fails to continue to play.

Curiously, this material rule is the common denominator of *boxing* and *drinking games*.²¹

May the Best “Man” Win

Most board game rules do not discuss the human body in any way. It is assumed, for example, that adult players are able to read, move objects with their hands, have the cognitive capacity to understand what is going on, and have sufficient eyesight to observe play.

In rules of sports, the body is accounted for much more visibly. For example, in the *ITF Rules of Tennis*, there are provisions for how to serve if a player has only one fully functional arm (“A player who is able to use only one arm may use the racket for the release of the ball”²²) and separate rules for *wheelchair tennis* (“The wheelchair is considered part of the body and all applicable rules, which apply to a player’s body, shall apply to the wheelchair.”²³). Indeed, the body of the player can be extended with tools and equipment—which is then also regulated by rules.

The importance of inborn ability is a central underlying tension of all physical sports. The brute facts of our species include numerous elements that are problematic for the occasionally meritocratic ethos of sports. Men tend to have more muscle mass than women, and on average men perform 10% better in sports than women (Thibault et al. 2010). Taller people tend to have easier time playing *basketball*, leaving most other bodies at a disadvantage.

Sports often favoring Western men is not entirely an accident. As sport scholar Jaime Schultz writes,

Olympic sports tend to favor former colonial powers and wealthy nations with the means to export and popularize their pastimes throughout the world. As a result, we are not likely to see the national games of Afghanistan (buzkashi), Bangladesh (kabaddi), or Columbia (tejo) represented at the Games.

What counts as a sport also tends to favor those activities invented by and for men and in accordance with what we think of

as “masculine” attributes, such as strength, power, and aggression. Coupled with the historic exclusion of girls and women, sport constitutes a “male domain,” as scholars have characterized it—a “masculine preserve.” (Schultz 2018, 5–6)

As a compromise to manage the gap of biological advantage and fair meritocracy, numerous sports have established separate series for people with different kinds of bodies, based on arguments ranging from patriarchal patronizing to feminist emancipation (see, e.g., Schultz 2018). Examples of segregation based on bodies include gendered segregation, Paralympic classification, bodyweight categories in weightlifting, and age groups in junior sports.

From the perspective of rules, the hazard of such classifications is that fair and absolute determinations over whether certain individuals belong to some classes are hard to make. The classes are discrete; they divide the continuum of humans into clearly bounded classes. For example, the weigh-in procedure for determining the bodyweight of a weightlifter is comparatively simple, specified over three pages of text,²⁴ but the work that happens with the body in order to fit in a category is complex. Eating disorders, excessive dieting, and *anorexia athletica* are all common (Schultz 2018, 152–153). An athlete can work to change one’s body, with the brute facts measured at the moment of weighing the body.

Finding the right balance between fairness (equality of opportunity) and competition (may the best competitor win) has been a complicated discussion in the philosophy of sport. One the one hand, there is a wish to see each player compete in the context of their personal starting point; on the other hand, there is the wish to see who is best at something regardless of any contextual privileges.

In terms of sex and gender, sport rules have traditionally maintained that there are only two categories, men and

women, and everyone must fit into exactly one of these categories. Challenges arise when the gender experience of an athlete and the regulation of bodies are in conflict. While sports medicine has had a long history of treating sex as a binary brute fact, the reality is more complicated.

Medical historian Vanessa Heggie (2010) provides an account of sex and gender testing in sports. The history of individual cases goes all the way back to the 1930s, and formal blanket sex tests for women were introduced in the 1960s. Men were not tested, since the tests were about determining if an athlete is a “sex fraud” attempting to gain unfair advantage. In the beginning, there were visual examinations of genitals and secondary sexual features, which developed into a “naked parade” of women athletes. Then a move was made to chromosomal testing, which gave way to genetic testing. Blanket sex tests were discontinued around the turn of the millennium.

Since the turn of the millennium, hormone-based testing has been used as sex verification in sports. For instance, the rules of World Athletics²⁵ specify five types of relevant “differences of sex developments,” which may result in a certain level of testosterone that has a “material androgenising effect.” Such athletes are eligible to compete in certain races with female classification if they comply with the following eligibility conditions:

2.3.1 she must be recognised at law either as female or as intersex (or equivalent);

2.3.2 she must reduce her blood testosterone level to below five (5) nmol/L6 for a continuous period of at least six months (e.g., by use of hormonal contraceptives).

Or, as Jordan-Young, Sönksen, and Karkazis (2014) summarize, intersex athletes with “naturally high testosterone levels and tissue sensitivity are banned from competition unless they have surgical or pharmaceutical interventions to lower their

testosterone levels.” Heggie argues that sex testing is ultimately tautological:

The activities which we recognise as sports are overwhelmingly those which favour a physiology which we consider ‘masculine’. As a general rule, the competitor who is taller, has a higher muscle-to-fat ratio, and the larger heart and lungs (plus some other cardio-respiratory factors) will have the sporting advantage. It is therefore inevitable that any woman who is good at sport will tend to demonstrate a more ‘masculine’ physique than women who are not good at sport. What the sex test effectively does, therefore, is provide an upper limit for women’s sporting performance; there is a point at which your masculine-style body is declared ‘too masculine’, and you are disqualified, regardless of your personal gender identity. (Heggie 2010)

To sum up, making an exact determination of an athlete’s sex can be an extremely complicated, invasive, traumatic, political, and legal operation, with rules changing significantly over time. Drawing such boundaries with rules is technically complex, as it also involves medical systems as well as antidiscrimination legislation.

However, some sports have opted for different ways of determining if participants compete as men or as women. In women’s *roller derby*, the international governing body, Women’s Flat Track Derby Association, has issued a statement about gender, and while the sport is divided into women’s and men’s classes, the determination of gender is based on self-identification:

An individual who identifies as a trans woman, intersex woman, and/or gender expansive may skate with a WFTDA charter team if women’s flat track roller derby is the version and composition of roller derby with which they most closely identify.²⁶

Why is gender segregation often considered so important? For some sports, the rhetoric is based on fairness, as men arguably outperform women in many physical contests at the highest

levels.²⁷ Even so, there are numerous sports where there is no known fairness reason for gender segregation, such as shooting, sailing, equestrian sports, motorsports, and esports.

Conclusions

Studying gameplay requires one to understand both the social and the material aspects of the phenomenon. The material reality asserts very concrete limits on our play; balls do not bounce if bouncy material is missing or if the lack of gravity does not bring the ball back “down.” Even so, it is the human social construction that imbues the material reality with meaning. We both materially embody formal rules, for example, in gaming equipment and create formal rules to govern material matters, such as terrain. With rules, we construct and uphold categories such as “a legal basketball,” “an original *Donkey Kong* arcade cabinet,” “a featherweight wrestler”—and exactly two human sexes. From those definitions arise complex bureaucratic rituals, where we establish that some brute fact A indeed counts as legal game element B in the context of the game C.

Digital games are an interesting case in this discussion, since in some ways, the site of play is fully governed by materially embodied rules. Even if digital games are often discussed as being exceptional due to the material conditions that many of their rules take, these are comparable to the conditions of the ball, the racket, and the surface of the *tennis* court. As transgressive play patterns underline, even digital games have other types of rules. It is important to distinguish material rules from formal and social rules because material artifacts that embody rules cannot address the cultural meaning of gameplay.

A game can never be constituted by material rules alone. There always needs to be a socially constructed understanding of the game complementing those material rules. That is what sets games apart from toys. But any toy—indeed, any item—can be made into a gaming implement with just a couple of formal rules and the social rules of what it is to “play a game.”

Virgin Play

Learning to play a materially encoded digital game is a process that differs from learning to play a game with formal rules. The latter case, at least ideally, begins from learning the rules before play and internalizing them over the course of first game sessions. Digital games rarely have explicit formal rules to learn. Instead, the player starts interacting with the game, learning the controls, interactions, and systems through a process of trial and error usually supported by a game tutorial.

Such *virgin play* is a matter of critical importance to all game development. Endless hours of play testing, A/B testing, and player tracking are spent on ensuring that players pick up the necessary skills and manage to complete the tutorial. In many game genres, the entire game is aimed at a virgin player—an adventure game might have no replay value as its puzzles can only be solved once. Indeed, all *games of progression* (Juul 2005, 72–73) where the game can be played through and its (narrative) content be exhausted are targeted to players playing them for the first time.

Game scholar Espen Aarseth (2003; see also Myers 2010) has listed seven strata of engagement with play to describe how deeply game scholars understand the objects of study, culminating in the mastery of expert play and innovative play. From the angle of virgin play, however, it appears that sometimes it is the virgin players who have the best understanding of the game—at least if they are from the intended target audience, possessing

the relevant gaming literacy from other similar games. Often only the virgin player can play a game as intended, understanding its nuances properly, before succumbing to creative readings. And indeed the game industry tends to agree, marching in endless cohorts of playtesters to see the unfinished product with fresh eyes.

Conclusions

We humans use rules to carve meaningful games out of our everyday lives. Rules constrain our behavior and constitute the finite worlds of games where actions and artifacts obtain special meaning. Rules take many forms; gameplay cannot be rendered legible by studying the explicit formal rules only, a much wider sense of “rule” is needed. This is the constructionist ludology approach on analyzing games. Despite the challenges of articulating things like social norms, legislative context, and internal rules in a coherent manner, this is necessary for deeper understanding of games.

The project of this book started as an attempt to map out different kinds of game rules, to make sense of what we mean by the word “rules.” Depending on whether we are discussing a private mental collecting hobby of a *car numberplate game* or games existing mainly as legal practice such as *sports betting*, how those rules can be changed varies from a whim of a moment to challenging physical craftsmanship, and the consequences of breaking them can vary from angry social media posts to prison sentences.

The rule classification serves to map not only rules but also games. *How* are various kinds of games *games*? How can we

account for the similarities of games if they are as vastly different as the formal *chess*, the internal *car numberplate game*, the social *truth or dare*, the material *Pong*, and the legally construed *sports betting*?

Considering the formal, internal, social, external, and material rules obscures the idea of a specific, distinct, socially shared and recognized game. Formal rules are exact in principle but often not in practice. Internal rules are different for each player and every play instance. Social rules are fuzzy by nature and constantly renegotiated within communities. External regulation evolves over time and varies from one country to the next. Material embodiments of rules can be formally valid, but they can also be outdated, broken, buggy, or invalid.

Ephemeral Games

When attempting to capture a specific game, there is often a drive to uncover the core or essence of that game, but by looking at game rules, we have learned that there is no identifiable and unambiguous formal core that we can isolate. Although we must recognize that some rules are extremely peripheral to the practice of play, we find difficulty, especially in relation to practice of actual play by actual players, to meaningfully separate the “essential” constitutive rules from the “auxiliary” ones.

If such distinctions are difficult when looking at formal rules, things get even more complicated when adding the other four rule categories to the mix. The monolithic idea of a specific game is slipping away: the *ice hockey* played casually on a Finnish ice rink and the *ice hockey* played in the *Stanley Cup* finals are both *ice hockey*—but their rules are different on all five levels, from the geometry of the rink to the formal and legal differences in the level of accepted violence. Instead of looking for

a formal ideal of *ice hockey*, we find it more useful to think of a cluster of activities that share a Wittgensteinian *family resemblance*.¹ The different versions of the game have much in common, but they are far from identical.

At the end of this journey, we feel we are more knowledgeable but no less confused. Especially in the world of sports, delving into endless troves of documents describing umpire certification procedures and the properties of acceptable sporting implements, professional *ice hockey* presents itself as a moving target.

The official variants of *ice hockey* are games embodied in living cultures and bureaucratic processes rather than games described in their rulebooks. If one were to set out to print the complete formal rules in effect during the first *Stanley Cup* championship game played in 1893, it would be a complicated task requiring one to assemble historical documents that were in effect at the time, trying to interpret them in the light of contemporary practices. Actually playing a game with all the same formal, social, external, and material rules would be quite impossible: *Games-as-bureaucratic processes* are *ephemeral*, both impossible to preserve and impossible to reproduce.²

What the analysis presented in this book has hopefully made clear is that game rules are complex, and the idea that we can have a game disconnected from its situatedness in culture requires bracketing much that makes the game recognizable to its players. In practice, some bracketing is usually needed, but this should be done consciously. Analyzing just one specific dimension of rules can be worthwhile, but that should not be confused with analyzing the game as a whole.³ The idea of a game reduced to some formal essence, or even an ideal game just as fully created by an auteur designer, is never the whole picture. As social constructions, games and their rules are sociomaterially supported practice.

When we consider the many different kinds of games, it appears that different types of rules typically take primacy in analysis—in comparison to other types of games:

Board games are an archetypal example of games built on formal rules. While their *systems* can be understood on the level of formal rules, their *play* cannot. Instead, one needs to also look at the necessary lubricant of microcultural social rules.

Textual freeform role-playing on internet forums is mostly built on internal rules, in terms of building collaborative fiction with perceived coherence. These communities have social rules that are used to police players' apparent adherence to those internal rules, but the inner life of a player can never be reliably ascertained.

Party games often have minimal formal rules, and the practice of play is often all about social rules. *Truth or dare* has very few formal rules, no points, and no winners, but much of the play is about nuanced real-time arbitration on whether someone is a good sport, as well as deploying small social sanctions against players who are not.

Sports betting is constituted on top of external regulation. Practically all formal rules of betting are made into legally enforceable systems, so that courts can hand out fines and prison sentences for flagrant rule violations. Cheating in *sports betting* constitutes fraud in the context of the legal system.

Jigsaw puzzles are toys manifesting a set of material rules. The cover of the box does not need to state any formal goals, as the purpose of the toy is considered culturally obvious. Even so, formal rules can be used to transform *jigsaw puzzles* into competitive gaming implements. In the individual category of the *World Jigsaw Puzzle Championships*, the players must “build an unpublished 500-piece puzzle” as fast as possible.⁴ Digital single-player games are primarily governed by their

materially encoded rules, even though they might visually display instructions to the player.

A ludologist truly wanting to understand a game must understand both the practical dimension of priority of different rule categories for the game and how the less obvious rule categories relate to play. On paper, *truth or dare* has very little to do with external regulation—but in practice, the very point of the game is to subvert social codes of surrounding society.

Extended Temporalities of Rules

As an example of how we can use the various rule types to study a game, we can look at a particularly serious game, the final match of a *FIFA World Cup*, to evaluate how the hold of rules over a game lasts for years.

Many years before the game, the host country is selected based on bids by the FIFA Executive Committee using a detailed ballot system.⁵ The choice follows formal rules of the federation, many of which are enshrined in external regulation as legal obligations. The Qatar 2022 World Cup bid brought wide attention to issues such as corruption and human rights, prompting demands of further external regulation to guide the selection process.

Years or months before the game, the teams participate in the qualification phase, as only thirty-two teams are allowed to enter the tournament. The space for the final match is established by encoding the formal rules into the material reality of the stadium: the arena is built, and goals 7.32 meters wide and 2.44 meters high are erected. The individual athletes prepare themselves for the contest by complying with doping regulations. This includes both the brute purification of the body, through actually avoiding forbidden substances, as well as

socially constructed purification through compliance with the testing regime:

Using the form provided by FIFA, each Player has to file his whereabouts information with the Association concerned for the remaining days of the current quarter within ten days of receiving notification of his designation, and afterwards for all days on a quarterly basis by 25 December, 25 March, 25 June and 25 September.⁶

During the weeks before the game, the two teams must earn the right to participate in the final by winning the earlier rounds of the tournament. Even when the team is not on the field, the players must comply with tournament rules, which can place requirements on the athletes, officials, associations, and other parties. For instance:

The participating member associations and their Team Delegation Members shall comply with the FIFA Statutes, the FIFA Disciplinary Code and the FIFA Code of Ethics, in particular in matters regarding the fight against discrimination, racism and match-fixing activities.⁷

Immediately before the kick-off, the teams must go through various rules-defined rituals, such as the mini-game of coin toss to determine which team takes the first kickoff. The play still has not started at the time of coin toss but only at the kickoff: "The ball is in play when it is kicked and clearly moves."⁸

During the game event in the stadium, there are various breaks, such as the half-time interval and the other stoppages due to game events such as throw-ins and new kickoffs. These periods are regulated by their own rules; for instance, after scoring a goal, "Players can celebrate when a goal is scored, but the celebration must not be excessive."⁹ Players are expected to comply with the meticulous formal rules of the tournament but also to follow the vague principles of good sportspersonship.

Immediately after the game is over, there are processes that conclude the ritual of *football*. For instance, the referees must submit their reports to higher authorities of the sport, and the teams have a few hours to lodge protests about the match.

Years after the game is over, the doping samples will still be retained by the World Anti-Doping Agency. If new technologies are developed that prove some athletes used controlled substances, the outcome of the game could still be adjusted through doping-related victory conditions.¹⁰ The material rules encoded in the stadium will be visible for a long time (see figure 6.1).

This layering of the temporal stages of the game is a part of the ritualistic and performative nature of games. Ethnographer



Figure 6.1

These material remains of a magic circle are at an abandoned *football* stadium in Bratislava, Slovakia. At the time of writing, it is not yet known what will happen in the coming years to the seven stadiums built by migrant workers specifically for the 2022 *World Cup*, as the climate is too hot for *football* most of the year. Photograph: Grey World/Flickr.

Arnold van Gennep (1960) identified three stages for liminal rites, starting with the preparatory *separation* from the quotidian world, followed by the *liminal* phase, where participants are placed symbolically in a special state, and concluded by *incorporation*, in which the consequences of the liminal acts are integrated in the ordinary world again. In sports, we can see how the various steps before the game set apart the athletes, the officials, and the site of the game, and the incorporation phase integrates the outcomes into the history of *football*.

While in *football*, the rules are used to establish ritually pure athletes, officials, and arenas, these rules extend to animals in equine sports,¹¹ to automobiles in motorsports,¹² and so forth. *Formula One* takes this step even further, as the finances of the teams are monitored in order to enforce the cost cap of the competition, incorporating the financial accountants into the ritual preparations of the competition.¹³

The formal rules of the preparatory steps also often invoke the layer of external regulation by requiring participants to engage in legally binding contracts to complete the preparatory steps. While particularly visible in the context of professional sports, such temporally expansive external regulation can also be found in other games in the form of end-user license agreements, terms of services, and codes of conduct.

From the perspective of rules, it is not trivial to figure out when the game actually starts. The *ITF Rules of Tennis*¹⁴ stipulate that “as a principle, play should be continuous, from the time the match starts (when the first service of the match is put in play) until the match finishes”—but from a more general formal perspective, we cannot really rely on the statements in the rules of games to determine when they *actually* start.

There are two ways to address the question of temporal boundaries. One is to declare that game rules can only be in

effect while the game is ongoing. Thus, in order to constitute an athlete in a competitive game of *football*, the player must submit to the constitutive rules of the institution of *football* far in advance and start complying with the doping regulations. From this perspective, professional athletes are *always* playing a game: there is no ritual. The other is to define the temporal core game as the “actual game” and concede that game rules may hold power over people while they are not playing the game. Neither of these alternatives sits well with an intuitive understanding of “game” or “game rules.”¹⁵

Breaking Rules

As our understanding of the complexity of rules becomes more nuanced, rule violations also become increasingly complicated to untangle. What counts as rule-breaking? If only formal rules are considered, the picture is relatively clear. However, conflicting rules, interpretation, rule negotiation, context, and material reality all influence this mangle of play (see figure 6.2).

Just as there are multiple types of rules, transgressions of rules can also take multiple forms. Rules can be broken accidentally or intentionally, visibly or unnoticeably. The motivations of transgressions can be anything from tactical to political and from selfish to frivolous. As there may be considerable variance in the interpretation of the rules, there can also be significant disagreement among the players on what counts as a rule violation.

Cheating is a particularly frowned-upon category of rule violations. Sports philosopher Warren Fraleigh accounts for cheating as follows:

Cheating is an intentional act that violates an appropriate interpretation of the rules shared by the participants, done to gain



Figure 6.2

In *Warhammer 40,000* (ninth edition), the shooting model has to have a line of sight to its target. The rules instruct: “If unsure, get a look from behind the firing model to see if any part of the target is visible.” However, when determining whether the target benefits from the cover given by “area terrain” such as ruins or woods, it suffices that the target is “within” the terrain feature. In practice, both of these determinations are often subject to ongoing arbitration between the formal rules, the social rules, and the material rules—and the formal line-of-sight rules have changed between different editions. The game even formally requires pregame arbitration: “Each time an Area Terrain feature is set up on the battlefield, both players must agree upon the footprint of that terrain feature—that is, the boundary of the terrain feature at ground level.” The Predator tank shown in the distance did not survive to the next round. Photograph: Mikko Remes.

advantage for oneself and/or one’s teammates, while trying to avoid detection so as to escape penalty. (Fraleigh 2003)

Fraleigh argues that cheating is intentional, and thus accidental rule-breaking is not cheating. Rules-lawyering may amount to cheating if it advances an inappropriate reading of the rules. For Fraleigh, overt transgressions (such as strategic fouling) are not cheating—but that does not mean that he would find overt rule-breaking acceptable.

Cheating is particularly relevant in relation to formal rules. Violations of social rules fall more under the category of *faux pas*: bad manners and questionable ethics. Calling attention to possible cheating is a serious charge, accusing another player of cheating violates etiquette, and it can put the game in jeopardy as it shatters the playful mood—even if the charge is accurate.

Can you cheat against your internal rules? If, for example, a player decides to challenge themselves by playing a digital game without reloading saves, and then after a major setback does revert to an earlier save point, did they violate an internal rule? Or did they simply renegotiate their internal rules on the fly? Are some players truly capable of lying to themselves, congratulating themselves for the great accomplishment while genuinely forgetting that they reloaded at some point?

Cheating against rules enshrined in external regulation raises the stakes, as external regulation can apply punitive measures with much more severe and long-lasting consequences. While a legal casino can sue cheating *poker* players for fraud, an illegal underground *poker* ring cannot. Then again, a criminal organization might use illegal violence as the punitive system for its external regulation. Curiously, *all participants* might together cheat against external regulation—when the whole game is forbidden by the state.

As discussed earlier, game scholar Mia Consalvo found in a study of digital game players' attitudes toward cheating that there is significant variance in what her informants count as cheating:

All players define cheating in a game as an activity that confers unfair advantage to the player. Yet that's where the consensus begins to break down. In their operational definitions, players identified different items and activities as cheating or not. From the purist to the purely social, cheating ranged from anything outside

“one’s own thoughts” in a single-player game to activities that had to make other players worse off. (Consalvo 2007)

Played alone, the digital game is akin to a toy. Is it possible to cheat a toy? Does cheating always require a social element? Is cheating in single-player digital games a question of the internal rules?

In our interpretation, material rules cannot be cheated. They are the brute circumstances in which play occurs. Certainly, it is possible to use additional software to gain an advantage in a digital game or to hide an ace in your sleeve. Such actions do not violate the material rules but the other rules present in the game. And indeed, these are the rules Consalvo’s informants were debating: Is using additional software cheating? Is using information from walkthrough cheating? Similarly, using performance-enhancing drugs to impact a player’s body to gain an advantage is cheating, but it is about breaking formal rules rather than material rules.

It is also possible to break rules for reasons not related to winning. Following rules is not necessarily an ethical act: rules can be unfair, politically motivated, or excluding; they can be sexist, racist, transphobic, homophobic, or ableist. In formal rules, this might mean an “arbitrary” or perhaps “auxiliary” requirement to walk between holes at a *golf* course; in social rules, this might mean sexist restrictions on who gets to participate; in external and material rules, this might mean an unfair use of the possibilities of executive ownership; and so forth.

As social rules are vague, reaffirmed in practice, and subject to negotiation, they can remain contested indefinitely, and it is unlikely that uniform understanding of what counts as unsportspersonlike conduct, trolling, or grieving will emerge. When social rules are contested, identifying rule breaking is hard. Cheating and conscientious objection to unfair rules have

very different goals; the former is about gaining an advantage while the latter is often about transforming the rules.

Play designer Bernard De Koven has presented a very different take on cheating. In his book *The Well-Played Game*, he sets out to discover a game that is fun and meaningful for all the participants. One of the aspects of finding such a game is changing the rules of the game—and testing what rules can be changed.

There are more rules than you realize. Many of them belong to a larger convention rather than a specific game. All of them can be changed. Some are subtle and take a long time to find. Cheat and see if anybody notices. Cheat openly so everyone can see it. If you think it's a rule but you're not sure, see what happens when you break it. (De Koven 1978, 68)

The first half of this quote basically sums up the project of our book. The second half, how cheating is a good way to understand rules and games, is also particularly good advice for understanding games. The ethical stance taken here is that players and their mutual enjoyment are more important than game rules.

Following De Koven, we can adopt a less serious attitude toward rules. In the practice of playing games, we learn that while rules are central to games, singular rules can and maybe even should be changed on a whim. They can be bent, broken, and brushed aside, and they can be forgotten, disregarded, and reinterpreted. While without rules we cannot have games, any one rule should be held lightly as more of a suggestion than a command. If we view players as more important than the game, we will make and unmake rules.

Making Meta

Rules are made in a process of intentional or incidental iteration. There are numerous professionals whose specific expertise

is creating rules such as game designers, game federation officials, programmers, lawyers, and tournament organizers. Players also create rules knowingly and accidentally, even if they tend to be more ephemeral. Only after a set of formal, material, and regulatory rules is implemented can their full impact on system dynamics be observed. A rule change can only be evaluated in retrospect by observing the resultant player behavior. Game scholar Constance Steinkuehler (2006) describes the dynamic relationships between the different actors around the game:

It's not that designers, EULA writers, and the like are somehow unaware of the fact that the game worlds they create are often inhabited in ways that are underdetermined by the designed game rules and regulations (or, at least, not predictable from such rules in a necessarily straightforward way). Truth be told, more than any other group of professionals, game designers and regulators are all too aware of the precocious unpredictability of how their designs and rules will be taken up by the groups they are intended to regulate. (Steinkuehler 2006)

For Steinkuehler, games are evolving sociocultural practices, where player behavior impacts design and vice versa. Studying massively multiplayer online role-playing games, she notes that the *metagame* (or the *meta* in contemporary gaming vernacular) evolves as players overcome challenges, and designers struggle to create harder challenges.

The meta is particularly visible in collectible card games and continually updated free-to-play mobile games, although it can be found from any game with a large and active player base. Players develop effective play patterns, discuss them online, and react to each other's play patterns, and developers react by adding elements or changing rules, prompting new effective play patterns to emerge—and this negotiation is a key source of fun of the game for many players (see Nguyen 2019). “The metagame

changes as both the game and its players change, and so what is considered the ‘best’ approach to the game is often in a state of flux” (Donaldson 2015).¹⁶

In the iterative development of the meta, the play practices, rule creation, shifting social and cultural norms, and rule negotiation become tangled together. The live operation game design becomes iterative by necessity, because the dynamic behavior of the players changes based on changed incentives and impediments. But it also becomes necessarily iterative, because game design becomes politicized: for example, player communities can pressure game developers to change rules by staging demonstrations in virtual worlds.

Such challenges may relate to numerous issues from players’ game design ideals to shifting societal values. In the summer of 2020, when the Black Lives Matter movement was again making institutional racism visible, Wizards of the Coast, the executive owner of *Magic: The Gathering*, banned seven cards with “racist or culturally offensive” images in all sanctioned tournament play.¹⁷ The player community was divided on the issue, protesting both against the offensive cards and against the decision to ban them.

Sometimes protests take the form of boycotts. When players stage a campaign to leave a game bad reviews in the Apple App Store, to pressure developers to undo the nerfing of their favorite collectibles, we end up in a situation where the systems of external regulation are leveraged to alter the formal and material rules of the game.

As we analyze metagame with the rule typology used in this book, it becomes apparent that metagames are a combination of all five categories of rules. The meta shifts due to play practices emerging from internal rules, the knowledge that formal rules can and do change, the cultural shifts in the social rules

of what kind of play is acceptable and what one can play with, the available additional tools and technologies outside of a game and their regulation, and the changes in the physical play equipment. Unpacking meta is hard as it is an example of the dynamic, constantly fluctuating combination of all five categories.

However, this nature of games as shifting tradition is not an occasional side effect of players playing games but an ever-present part of any game as living praxis. Meta or metagaming is one name we give to the visible part of the complex process of negotiation around game rules and practices of play.

The Paradox of Liberation

Rules are constraints placed on the participants' agency, which we use as building blocks of games. Outside games, we have innumerable possible actions available to us. Game rules limit these affordances, and by doing so, they bring the remaining options into focus and imbue actions with added endogenous meaning.

Although rules place additional limits on possibilities, players often find liberation in play. The players of the physical party game *Twister* (see figure 6.3) are following not only the ordinary rules of society but also the rules of the game, and the two are at odds. When *Twister* was published, many suspected that its real goal was somehow sexual—despite the well-dressed adult players in the original box art.¹⁸

The added formal and social rules of *Twister* may appear to supersede the rules of society, allowing us to be bolder in getting within an intimate distance of each other. Yet societal norms are not suspended—were we to play *Twister* in a conservative moralist society, we might still end up in trouble. Instead,

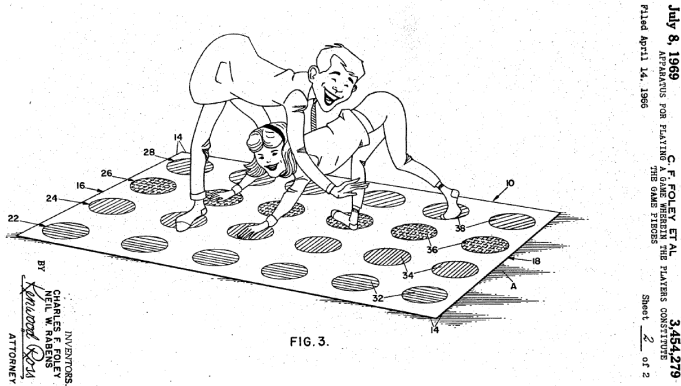


Figure 6.3

“The primary object of the invention is to provide an apparatus for playing a game wherein the objective of each player is to force his opponent or opponents first to fall to the ground. In a series of successive steps, each of the players, responsive to a command, moves, simultaneously with his opponent, a command-designated limb of his respective anatomy to a player-selected one of a plurality of command-designated delineated areas within a playing arena, all to the end on the part of each player to so entwine or interengage himself with the opposing player as to allow such opposing player no alternative but to be forced to assume a game-losing position.” Text and illustration: U.S. Patent 3,454,279 (1966).

a liberating experience of *Twister* play is possible because as the meaning of closeness is partially transformed by the game rules, the players have an alibi to get transgressively close to each other.

The players are simultaneously in on the joke and consensually playing with each other. It is relatively easy to consent, when clear and simple rules provide safeguards to the experience. The rule functions as a permit and an excuse while providing a winking plausible deniability. The game can become an embodied

way of flirting, even to the point where even players' biological bodies can produce involuntary responses to the experience.¹⁹

But how far can it be taken? What counts as crossing a line? How does this knowledge of social expectations around the game impact on the playing? As much of the excitement in such party games stems from the feeling of social transgression, it is very hard to precisely predict what this mangle of rules will produce and what is too much, leaving players to police their internally construed personal boundaries. Certainly, such determinations cannot be reliably done just armed with formal rules—or from an external, disinterested position. To find answers, the players tap into the complicated, conflicting mess of the rules on all levels.

Flirtatious adult *Twister* play exemplifies the *paradox of liberation*, which is based on two properties of rules: first, rules make actions possible and meaningful, and they give players an excuse to perform them. Second, rules produce safety through predictability established by constraints: we are free to choose between significantly limited choices. When the spinner in *Twister* tells us to place our right hand on a vacant red circle, we are given an excuse to do so and safety in understanding the affordances the game presents to the other player.

The rules make our *Twister* moves relatively safe. In this sense, adding even more rules to life, establishing the context C, can make moments in life *liberating*—while *less free*.

The Beauty of Rules

Working with this book, we found great beauty in rules.²⁰ Rule 104.3f of *Magic: The Gathering Comprehensive Rules* is almost an existential statement:

If a player would both win and lose the game simultaneously, that player loses the game.²¹

The beauty of well-written game rules somehow resembles the beauty of well-written program code or an aphorism imbued with meaning. Every word is clear, exact, and necessary. Every detail is thoughtful and deliberate, every word carefully considered.

Elegant rules do big things with few words. Concise statements bring about clarity and set up immense possibilities. Much strife can be removed with brevity. *Scrabble* eliminates all debate over acronyms and compound words with one sweeping statement.

The Official Tournament & Club Word List, 2016 Edition, published by Merriam-Webster, Inc., contains **all** acceptable words.²²

While the *Scrabble* rule is beautiful due to the way few words have comprehensive implications, the classic Community Chest card rule from *Monopoly* is beautiful in a completely opposite way. Many words are used to do a small thing, but the redundant repetition reads like poetry, driving home your inevitable fate:

Go to jail
Go directly to jail
Do not pass go
Do not collect \$200

Sometimes the beauty of rules comes from the way they play with ambiguity. This is how you cast spells in the Potteresque magic school larp *College of Wizardry*. Written with the verbosity of a play instruction, this rule establishes a very specific and deliberate vibe in the game:

Casting spells happens simply by waving your wand and saying a magical-sounding word. There are no spell lists or specific gestures

for you to memorize: if you make it look and sound like a spell, it is a spell. If the spell isn't self-explanatory, it's also a good idea to accompany it with an in-character explanation of what you're trying to do: "I shall turn you to stone. Petrifio!"

The target always gets to choose how to interpret the effect of the spell. It might work as the spellcaster intended, only work for a little while, or not work at all. Sometimes it might even have a totally unexpected effect!²³

In the particularly playful genre of magic school larps, ample room for improvisation is fun. Simultaneously, this rule intentionally makes it almost impossible to use magic in order to play to win.

Reading more technical rules, we have discovered the beauty of puzzle-solving and the mystery in them. Some rulesets are hard to crack but delightful when you get in the groove. Studying the World Athletics' *Book of Rules* for track and field sports, it takes considerable effort to figure out how the *100-m* dash is won.

The athletes shall be placed in the order in which any part of their bodies (i.e. torso, as distinguished from the head, neck, arms, legs, hands or feet) reaches the vertical plane of the nearer edge of the finish line as defined above.²⁴

This text is extremely precise but also evocative. Searle's social world is created through constitutive rules, and reading rules leads us to imagine alternative worlds. What would the *100-m* dash look like if hands were included in "bodies"? Would the runners dive arms and head first across the finish line? Would they wear gloves and elbow pads to prevent injuries?

Beautiful rules build not only social worlds of play but also internal systems of meaning: many rulesets are beautiful the way languages are beautiful. *Arkham Horror Third Edition* rule 406.3a states:

When a space has three doom or a neighborhood has a total of five doom, place an anomaly token in that neighborhood's central area. Other tokens in the central area are unaffected.

For a casual reader, this is foreign language, but a player familiar with the game can easily think with the endogenously meaningful concepts of doom, neighborhoods, and anomaly tokens.

Rules build on each other, create webs of meaning that serve as building blocks of social worlds and physical activities. Small but carefully placed words in these fractal foundations have a tremendous impact on how the physical and social realities look like. Sometimes rules are hard to grasp, but untangling their puzzles allows us to build and imagine social realities.

The beauty of rules can be found in the dynamic tapestry they create. *Twister* rules do nothing to indicate that players will quickly end up within intimate social distance. What will happen—how will it look and feel like, and what kind of emotions will it evoke—when both players simultaneously place their right hand on a vacant red circle?²⁵

Finally, there are endings.

Out of all the rules we have read, *go* has the most beautiful rule for ending the game. When all is said and done, the minimalist game concludes in a dignified consensus.

The game ends when both sides agree that there will be no more moves.²⁶

Notes

Introduction

1. See Stenros (2017); also Juul (2005); Salen Tekinbaş and Zimmerman (2004); Deterding (2013, 165); Upton (2015, 23–38).
2. Compare, e.g., Avedon and Sutton-Smith (1971); Lévi-Strauss (1962/1966); Nachmanovitch (1990); Suits (1978); Riezler (1941); Malaby (2007).
3. E.g., Ellington, Addinall, and Percival (1982); Parlett (1999); Salen Tekinbaş and Zimmerman (2006); cf. Hunicke, LeBlanc, and Zubek (2004).
4. E.g., Von Neumann and Morgenstern (1944); Myers (2010).
5. See, e.g., Gregersen (2005).
6. Salen Tekinbaş and Zimmerman (2006).
7. Scholars have numerous terms and divisions for these formal and informal rules: e.g., endogenous and exogenous rules (Björk and Holopainen 2005) and operational, constitutive, and implicit rules (Salen Tekinbaş and Zimmerman 2004, 130).
8. Boss (2008); White (2020, 151, 253).
9. Shubik (1983); Ståhl (1983, 37).
10. See Gibson (1986).

11. E.g., Gregersen (2005); Consalvo (2007, 87); Montfort and Bogost (2009).

12. E.g., Kirkpatrick (2007); Karhulahti (2015).

13. The initial version of this typology was published in Montola (2012).

14. While this book provides an account of rules, it cannot contain the multitude that is the play these constraints foster and provoke. Players play not only according to the rules but also against the rules, regardless of the rules, and with the rules. We touch on these issues, but the emphasis of this book is on rule-abiding play. A second delimitation concerns creations of rules. This book is not about how game rules are designed, how rules arise in traditions, or how player cultures' play patterns and activism are in dialogue with game design.

15. Like the *hermeneutic circle*; see, e.g., Ramberg and Gjesdal (2014).

16. See also Stenros (2015, 34–49).

17. See Salminen (2011, 12); Walsh and Downe (2005); Kallio (2006).

18. "It is an offence if a player: deliberately touches the ball with their hand/arm, including moving the hand/arm towards the ball." *Laws of the Game 2020/2021* by IFAB. <https://resources.fifa.com/image/upload/ifab-laws-of-the-game-2020-21.pdf> (accessed May 18, 2021). The understanding on what is "deliberate" is rather broad in the *football* community, and there has been considerable discussion on what kind of an angle of an arm counts as making one's body "unnaturally bigger" in a way that is considered deliberate.

19. The framework of constructionist ludology has been discussed in more detail in Montola (2012) and Stenros (2015). Here we present an updated summary of those two works to lay the theoretical foundation for inquiry.

20. The history of the concept dates back to at least 1951, when Per Maigaard issued a call for a periodical and a society for ludology and a society for ludologists (Juul 2013). He defined ludology as "the science of games and a part of sociology and the sciences concerned." When the academic study of digital recreational games was emerging,

one name for the discipline centering on games was ludology. It was a bold move at a time when the study of games was considered frivolous; there was a need for staking a claim to games as a valid topic of research and as games as valid cultural expression. Today, studying games is in vogue in numerous fields, and ludology is no longer seen as its own emerging discipline but as one approach among many toward studying games.

21. Ludological approaches have been criticized over the years. The project of studying games as games has been seen as a narrow focus on formal rule systems (e.g., Shaw and Ruberg 2017). We maintain that understanding the systems and structures of games is relevant for their study, but even when the focus of the study is rules, the formal rules are but one category among many. Ludology has also been construed, and criticized, as exceptionalist (Malaby 2007), antinarrativist (e.g., Klevjer 2002), and antifeminist (Harrer 2017; Vossen 2018; Apperley 2019). We do not see these as inherent characteristics of a ludological approach and reject all of these stances. Studying games as games need not lead to treating games as “exceptional” (cf. Malaby 2007; Apperley 2010, 11–12), as long as it is not the only approach to the study of games.

Ludology has been seen as antifeminist since it has been read as antinarrativist and formalist—and some works of ludology have disregarded representation. Since ludology usually concentrates on the game and not the player, ludological argumentation has also been used in gamer culture to uphold a narrow conceptualization of what “real” games or players are. Our understanding of “game” is inclusive, and we build on feminist and queer critique. For example, while representation for the most part falls outside the scope of this book, we are very interested in what kind of a player rules construe.

22. See, e.g., Myers (2010).

23. Esp. Searle (1995, 1969, 2010).

24. Searle (1995, 27–28, 66–71; 1969, 33–35).

25. See Searle (2010, 23–24).

26. Cf. Hacking (1999, 12–14).

27. Burghardt (2005, 81–110); Bekoff and Byers (1998).

Chapter 1

1. Many complex rule systems, such as *Magic: The Gathering Comprehensive Rules*, approach this kind of formality through precise use of language but are still miles away from the algorithms used to power the numerous *Magic: The Gathering* digital games. While algorithms in mathematics and computer science are written in formal language, examples of algorithms not written in formal language include cooking recipes or driving directions.
2. What if you run out of cards, you ask? Obviously, you shuffle the discard pile to create a new deck and keep playing.
3. <https://www.pagat.com/> (accessed December 25, 2022).
4. Sometimes these systems are called *open-ended games*.
5. This rule is so widespread that the current Hasbro *Monopoly* rules state that a player landing on Free Parking “does not receive any money, property or reward of any kind.” <http://www.hasbro.com/common/instruct/monins.pdf> (accessed April 17, 2021).
6. *International Poker Rules* 70.3 on “Rabbit Hunting.” <http://www.internationalpokerrules.com/poker-rules> (accessed February 18, 2022).
7. This is customary in at least board gaming culture. In spatially distributed games, like MMORPGs and larps, players can sometimes play with differing rules even while being aware of it. Practices of play are messy.
8. Compare with, e.g., Juul (2005), Järvinen (2008), and Björk and Holopainen (2005), who also work in a somewhat formal paradigm, even though they do not exclude the player from their work like Myers does. Järvinen and Björk and Holopainen use formalism with the explicit functional goal of designing play activity.
9. Note that Searle’s constitutive rules and Salen Tekinbaş and Zimmerman’s constitutive rules (with an a) are not the same. In this book, we follow Searle’s formulation, except when directly referring to Salen Tekinbaş and Zimmerman.
10. Some sport philosophers would disagree. For instance, Meier (1985) has no trouble discussing “the essence” and “the core” of a

sport. We find that distinguishing the “essence” of a game is perhaps simpler in the domain of sport than in the domain of gameplay in general—and that the essence of a game cannot usually be expressed on the formal level.

11. *FIDE Handbook, Laws of Chess* taking effect from January 1, 2018. <http://www.fide.com/component/handbook/?id=208&view=article> (accessed December 4, 2022). The rules do not require the use of the player’s own hand: rule 4.9 states, “If a player is unable to move the pieces, an assistant, who shall be acceptable to the arbiter, may be provided by the player to perform this operation.”

12. Law 8.7 states that after the game is over, the players record the result on their scoresheets, and “Even if incorrect, this result shall stand, unless the arbiter decides otherwise.” This rule is important for determining who is recognized as the victor of a specific instance of chess.

13. Rule 16.10.1b of *2022 Formula 1 Technical Regulations*. <http://www.fia.com/regulation/category/110> (accessed December 5, 2022).

14. <http://gatherer.wizards.com/Pages/Card/Details.aspx?multiverseid=121264> (accessed May 25, 2021).

15. Can the rules of *Nomic* be changed in a way that would make that instance of *Nomic* no longer be a game?

16. https://images-cdn.fantasyflightgames.com/filer_public/70/15/70156879-aeef-441e-94a0-1a816872058d/ahb01_rules-reference-compressed.pdf (accessed February 18, 2022).

17. https://images-cdn.fantasyflightgames.com/filer_public/ca/77/ca776ab5-8169-4e4e-9036-dd61843b08e1/ahb01_learn-to-play-compressed.pdf (accessed February 18, 2022).

18. *Arkham Horror Third Edition—Our Thoughts* in <https://www.youtube.com/watch?v=298ynffrCJA> (accessed February 18, 2022).

19. *The International Ski Competition Rules (ICR). Book III. Ski Jumping*. Edition November 2020. https://assets.fis-ski.com/image/upload/v1604593321/fis-prod/assets/ICR_Ski_Jumping_2020_clean.pdf (accessed May 18, 2021).

20. *Guidelines for FIS Ski Jumping Judges*. https://assets.fis-ski.com/image/upload/v1604928916/fis-prod/assets/Guidelines_for_Jumping_Judges_2020.pdf (accessed May 18, 2021).
21. Charles B. Darrow's white box rules from approximately 1934. <https://themonopolist.net/tag/darrow-white-box> (accessed April 16, 2021).
22. Once this can of worms is open, its influence tends to spread to supposedly unambiguous rules as well. The spirit of the rules is conveyed both implicitly through other rules (such as the FIDE rules for visually handicapped players) and explicitly in statements such as the preface to the *Laws of Chess*.
23. Preface, *Laws of Chess*. <http://www.fide.com> (accessed May 26, 2018).
24. *Warhammer 40,000*, 9th edition, p. 198.
25. Fraleigh (2003); see also Sniderman (1999).
26. The fine print: *Exploding dice* is a mechanic where, if you roll the best possible outcome on a die, you get to reroll that die and add the new result to your outcome. A d4 has a 1/4 chance to explode, while a d6 has a 1/6 chance to explode. Although an exploding d6 produces better results on average, sometimes rules call for meeting a specific threshold instead. When the success threshold is, for example, exactly 6, an exploding d4 has 3/16 chance to hit it, while an exploding d6 has only 1/6 chance.
27. Rule III.A.1. in *NASPA Official Tournament Rules*, effective January 4, 2017. <http://www.scrabbleplayers.org/rules/rules-20161201.pdf> (accessed May 26, 2018).
28. *How Olympic Badminton Made Losing a Winning Strategy*. <http://www.wired.com/2012/08/badminton-round-robin> (accessed May 25, 2021).
29. "I submit that diving and gymnastics competitions are no more games than are other judged competitive events, such as beauty contests and pie-baking competitions" (Suits 1988).

30. Rule 15, section 1, article 1, of *2020 Official Playing Rules of the National Football League*. <https://operations.nfl.com/media/4693/2020-nfl-rulebook.pdf> (accessed Match 30, 2021).

31. Cf. Salen Tekinbaş and Zimmerman (2004) for a different meaning of “constitutive” rules and Klabbers (2006) for a different meaning for regulative rules.

32. See Roversi (2010) for a more nuanced discussion.

33. See the proper rules of *football* for the exact version of this constitutive rule. *Laws of the Game 2020/2021* by IFAB. <https://resources.fifa.com/image/upload/ifab-laws-of-the-game-2020-21.pdf> (accessed May 18, 2021).

34. See, e.g., Carlson and Gleaves (2011) for a literature review and deeper discussion on constitutive and regulative rules, including discussion on whether they come from Searle or from Kant.

35. Mosca (2011) uses Searle’s concepts to build a typology of games. *Regulative games* are games based on regulating antecedently existing activities—like *100 m* regulates the activity of running. *Constitutive games* use rules to constitute activities that did not exist before the game. *Deregulative games* are based on a transgressive attitude and on disobeying antecedently existing rules. Finally, *deconstitutive games* deconstruct social institutions. In our interpretation, Mosca’s regulative, deregulative, and deconstitutive games are social institutions constructed through constitutive rules—Mosca’s labels discuss the functions of those games when they interact with external regulative and constitutive rules.

36. World Athletics *Book of Rules*, book C, section C2.1 *Technical Rules*. Approved January 31, 2020. <http://www.worldathletics.org/about-iaaf/documents/book-of-rules> (accessed May 18, 2020).

37. Formerly known as IAAF.

38. World Athletics *Book of Rules*, book C, section C2.1 *Technical Rules*. Approved January 31, 2020. <http://www.worldathletics.org/about-iaaf/documents/book-of-rules> (accessed May 18, 2020).

39. See Myers (2010, 30–31); also Järvinen (2008, 49); Fraleigh (2003).
40. *FINA Requirements for Swimwear Approval*. <http://www.fina.org/sites/default/files/frsa.pdf> (accessed May 26, 2018).
41. *FIDE Laws of Chess*. <https://handbook.fide.com/chapter/E012018> (accessed May 26, 2021).
42. *Yahtzee*, 1996, Milton Bradley Company.
43. *FIDE Handbook, Laws of Chess* taking effect from January 1, 2018, rules 1.2, 6.6, and 8.7. <http://www.fide.com/component/handbook/?id=208&view=article> (accessed December 4, 2022).
44. <https://magic.wizards.com/en/game-info/gameplay/rules-and-formats/rules> (accessed March 19, 2021).
45. See, e.g., Karlsen (2011).
46. Weisler and McCall (1976); also cf. Fagen (1981, 8–12); Burghardt (2005, 57–60); Koestler (1964, 509–512).
47. Cf. Aarseth (2003); Myers (2010).

Chapter 2

1. We have adapted the concept of internal rules from Dansey, Stevens, and Eglin (2009). Before them, Parker (2008) proposed the concept of *player-imposed rules*, but his formulation also includes shared rules that groups of players have adopted on top of a digital game, such as playing *jeep tag* in *Halo: Combat Evolved*. In our categorization, players agreeing to play *jeep tag* are establishing formal rules and using them to constitute a game within a game.
2. Drawing on Wittgenstein (1953/1958); Kripke (1982); Hoy (2004).
3. [https://deusex.fandom.com/wiki/Non-Lethal_Gameplay_\(DX\)](https://deusex.fandom.com/wiki/Non-Lethal_Gameplay_(DX)) (accessed April 17, 2021). See also, e.g., Salen Tekinbaş and Zimmerman (2004); Juul (2005), for more on *Deus Ex*.
4. https://en.wikipedia.org/wiki/Car_numberplate_game (accessed December 27, 2022).
5. See Montola, Stenros, and Waern (2009).

6. http://www.reddit.com/r/truегaming/comments/3sn27b/when_do_you_allow_yourself_to_savescum (accessed July 15, 2020).
7. Iron Pineapple, “Can You Beat Elden Ring WITHOUT Attacking? (Pacifist Run).” <http://www.youtube.com/watch?v=yKojQhBIJAK> (accessed October 10, 2022). *Elden Ring* probably cannot be completed without killing: in this challenge run, the killing just is not done by way of attacking.
8. Bushy, “Can I Beat Elden Ring When Everything Is Malenia.” <http://www.youtube.com/watch?v=WDRfdfempJw> (accessed October 10, 2022).
9. PewDiePie, “I tried to beat Elden Ring without Dying.” <http://www.youtube.com/watch?v=F-yEoHL7MYy> (accessed October 10, 2022). The first segment starts around 21:45 and the second around 51:00.
10. *Dragon Dice Starter Rules, Treefolk vs. Firewalkers V4.01 edition*. www.dragondice.com/rules/V4.01_Starter_TFvsFW_Final_LowRes.pdf (accessed May 11, 2023)
11. Another way to approach this would be through the concept of *prescriptive ontology* (see Nguyen 2019), as discussed in the next chapter, and subgoals, as discussed in the previous chapter.
12. This is similar to how Suber (1990) has used explicating social rules in *Nomic*; see next chapter.
13. We have argued for the idea of first-person audience before, in the context of role-play (e.g., Montola 2012), but are here broadening it to cover all play. For example, Ryan (2001), Mortensen (2002), and Sandberg (2004) have discussed similar ideas earlier. More recently, the concept of first-person audience has been further developed in Stenros (2010), Montola (2011), Montola and Holopainen (2012), and Stenros and MacDonald (2020).
14. Stenros (2009); Stenros and MacDonald (2020).
15. See also Bacon (2000, 47); cf. Walton (1990).
16. See, e.g., Drozd et al. (2001); also Aylett and Louchart (2003).
17. Players have varying stances toward their character in role-playing games. If the player acts as if they are the character, making choices

in a situation the character would do and treating the character as a full-blown persona, this is discussed in the emic role-playing theory as an *actor stance* (Boss 2008; see also White 2020). If the player uses the character as a pawn, as a way of carrying out their desires as a player within the game world without interest in the integrity of the character in the game world, this is called *pawn stance*. If the character is a puppet that is used with an eye toward fostering a satisfying dramatic arc, a story, then we are dealing with an *author stance*. Additionally, some role-playing games allow players to influence not just their character but the game world more directly, and if this power is used, it is called *director stance*. Obviously, players can and do shift between stances. Choosing a stance implies adopting certain internal rules.

18. Translation by the authors, from the now defunct website of the larp.

19. This joint pretending in role-playing discussed in the Nordic larp community is *interimmersion* (Stenros 2020; also Pohjola 2004).

20. See Montola, Stenros, and Saitta (2016) for steering in role-play.

21. The conflict that can emerge between the interpretation of the competitive gameplay as set up by the different rules and the interpretation of a story fostered through rules, especially the internal rule of formulating a coherent fiction, is a much-discussed tension. This is sometimes addressed with the concept of *ludonarrative dissonance* (e.g., Hocking 2009; Howe 2017), which we are not interested in addressing as it often rests on the idea that narrative elements in games are somehow inherently separate from the other game elements (see e.g., Arjoranta 2015).

22. http://www.vgaplanets.org/index.php/The_Fascist_Empire (accessed May 25, 2021).

23. Players can adopt internal rules that are in a deliberate conflict with what philosopher Bernard Suits (1978) calls the *lusory goal* (e.g., winning) or *prelusory goals* (i.e., achieving the wanted end state, such as “your opponent being ‘down’ for the count to ten” in a *boxing* match).

24. Playing to lose is relatively common in Nordic larp. Maury Brown and Ericka Skirpan (2019, 393) noted that “in the Nordics,

the phrase means to take risks with your character and allow non-optimal or problematic consequences to happen to them because it leads to an interesting story.” However, this concept does not fit well in other player cultures. “Many Non-Nordic players immediately recoil when they hear the word ‘lose’. They do not want to be losers.” There are even larps where formal rules require playing to lose: in the *Battlestar Galactica*-inspired larp *The Monitor Celestra*, the “players were instructed in detail on how to avoid winning the larp, and were obliged to follow that instruction: in fact *The Monitor Celestra* Briefing document . . . proclaimed that ‘playing to win is for asshats anyway’” (Fatland and Montola 2015).

25. Internal rules about cheating are an interesting example of regulative rules—rules that regulate antecedently existing activity—in games. Internal rules about cheating in single-player games are very much about navigating between continuing to play and seeing a win as valid.

26. Another relevant conceptualization comes from designer Anna Anthropy (2014, 15), who sees *verbs* as the most important rules of games. For her, any rule that allows the player to do something and change the game state is a verb.

27. See also DePaulis (2019).

28. According to Parlett, the concept was invented in Alain Borvo’s (1977) book *L’alouette, ou le jeu de vache*.

29. See Kultima (2018, 98–99) for *ostensive communication*, how game development utilizes the act of pointing to existing examples.

30. Charles B. Darrow’s white box *Monopoly* rules from approximately 1934. <https://themonopolist.net/tag/darrow-white-box> (accessed April 16, 2021).

Chapter 3

1. This description of events is largely based on Carlson and Gleaves (2011).

2. E.g., Fraleigh (2003); Simon (2010); Russell (2017).

3. *Laws of the Game 2010/2011*, IFAB, p. 111. This language was in effect in 2010 during the Suárez incident. It is no longer present in some later *Laws of the Game*.

4. Note that the delimitation between formal rules and social rules is different in this work from Montola (2012). In addition, the term “social rule” is used in a much stricter sense in this book than in Stenros (2015).

5. See Alexy (2000). In the context of legal studies, Alexy discusses how courts should apply principles: to a maximum amount possible, at least when they do not collide with other rules and principles. In a ludological context, when discussing players rather than referees, it appears that there is an invisible line determining the sufficient amount of, for example, “good sportspersonship” that one must fulfill to avoid consequences.

6. Nguyen argues that this following of rules does not mean that one is committing the fallacy of foregrounding the game designer’s interpretation of the work (see Leino 2012) any more than if you read a novel from start to finish. Nor does it mean that you cannot let your playful impulses loose and appropriate the game for your play purposes (although if you do that, you are not playing the game as designed) (see Sicart 2014).

7. See previous discussion on play instructions in relation to formal rules.

8. Or sportsmanship.

9. E.g., Keating (1964); Sheridan (2003); Simon (2010).

10. This emphasis on elite sports has been questioned, for example, by sport philosopher Henning Eichberg (2009), who points out that there are and have been significant bottom-up movements emphasizing that sports are for all. The human beings in these sports for all do not necessarily meet each other as athletes but as co-members or co-citizens.

11. Keating (1964). Sebastian Deterding (2013, 201–202) has found similar ideas expressed in game studies. A player of a game should care about winning, but not too much, and enjoy the proceedings.

The norm of *gameworthiness* is important: one should balance one's own play stance, be it winning or exploration, with care for co-players' enjoyment. Players should focus on the game and not be distracted by other things, and they should follow the rules and the "spirit of the game," not cheat or access hidden information. Players should remain calm, except if there is an audience. An audience gives alibi to show more emotion to keep up the viewers' interest.

12. Cf. Simon (2010, 42); Huizinga (1938).

13. These fair play rules are also contested. For example, Yağmur Nuhurat (2013) has questioned them in the Turkish context where these fair play guidelines are seen as akin to formal rules that local social rules can call into question.

14. <https://digitalhub.fifa.com/m/3dfb82abd6752a3c/original/yxpjmtqmr6qxknfzqb7n-pdf.pdf> (accessed December 21, 2021).

15. See, e.g., Butcher and Schneider (1998); Simon (2010) for discussions.

16. <http://www.roadandtrack.com/news/a37425098/rain-cancels-f1-at-spa-max-verstappen-wins-on-a-technicality> (accessed December 21, 2021).

17. E.g., <http://www.theguardian.com/football/2019/apr/28/leeds-aston-villa-championship-match-report> (accessed December 21, 2021).

18. E.g., <http://www.theguardian.com/football/2019/apr/29/marcelo-bielsa-aston-villa-goal-leeds-proud> (accessed December 21, 2021).

19. See also Woods (2009).

20. See Juul (2005) for more on valorization of outcomes.

21. *Yahtzee*, 1996, Milton Bradley Company. <http://www.hasbro.com/common/instruct/Yahtzee.pdf> (accessed May 11, 2023).

22. The concept of metagaming has been used in dissimilar but overlapping ways by different game scholars over the years. We characterize its use whenever the concept appears.

23. Charles B. Darrow's white box rules from approximately 1934. <https://themonopolist.net/tag/darrow-white-box> (accessed April 16, 2021).

24. See, e.g., Elias, Garfield, and Gutschera (2012).
25. http://www.wizards.com/contentresources/wizards/wpn/main/documents/magic_the_gathering_tournament_rules_pdf1.pdf (effective May 2, 2014).
26. “A loot ninja, or a ninja looter, or simply a ninja, is a player who takes loot to which he or she is not entitled. The act is referred to as ninja looting or ninjainj. The term predates World of Warcraft and originated with the notion of looting as quickly as possible.” http://wowwiki.fandom.com/wiki/Loot_ninja (accessed December 5, 2022).
27. “The term gank has several meanings, but often implies an overwhelmingly large group or much higher leveled player killing you and/or your group.” <https://wowwiki.fandom.com/wiki/Gank> (accessed December 5, 2022).
28. <http://www.gamedeveloper.com/design/opinion-devs-please-don-t-encourage-teabagging> (accessed December 21, 2021).
29. Sometimes this leads to player drama—but that might be a good thing for the game operator. In many virtual worlds, such as *EVE Online*, internal drama is an important source of player engagement.

Chapter 4

1. Some games have age restrictions. Rating systems impact game design, as content regulation influences market potential. Parents can make decisions about the games their children play also during play, based on content and informed by the age limits.
2. See, e.g., Castronova (2005, 156–157); Lastowka (2009); also Consalvo (2009); Montola, Stenros, and Waern (2009, 197–213).
3. *Regina v. Cey*, 48 C.C.C. (3d) 480 (Sask. CA, 1989).
4. The court also offered a five-part test for deciding if the consent of stepping on the ice covers the event in an athletic context. They are “(1) Nature of the game; (2) nature of the act; (3) the degree of force employed; (4) the degree of risk of injury; and (5) the state of mind of the accused” (quoted from Glover 2009).

5. *Self-regulation* is an effective strategy for avoiding legal regulation. By improving practices and safety standards, a sport or a game can avoid undesired attention from lawmakers. This can result in an invisible effect of hypothetical legal regulation on how games are played.

6. See, e.g., <https://kotaku.com/valorant-riot-teabagging-esports-galorant-dawn-risorah-1849338854> (accessed October 1, 2022, for a controversy over whether teabagging in *Valorant* should count as sexual harassment).

7. *The Criminal Code of Finland*. <http://www.finlex.fi/fi/laki/kaannokset/1889/en18890039.pdf> (accessed May 25, 2021).

8. Much like *fog of war* creates unpredictability in strategy games. See, e.g., Elias, Garfield, and Gutschera (2012) on fog of war.

9. Even accounting for the advantage that playing on white has over playing with black pieces (see Fine 2015, 227 note 3).

10. Kansspelautoriteit website <https://kansspelautoriteit.nl/english/loot-boxes/> (accessed March 19, 2021).

11. *PGA Tour, Inc. v. Martin*, <http://caselaw.findlaw.com/us-supreme-court/532/661.html> (accessed December 27, 2022).

12. In a 2019 decision to refuse golfer John Daly the use of cart, *The Open* played in the UK argued that “walking the course is an integral part of the Championship and is central to the tradition of links golf which is synonymous with The Open.” It is not ideas of fair play alone, but also tradition, that frequently upholds limitations on eligibility to play.

13. Terms of Use, *World of Warcraft*, November 23, 2012 version. *World of Warcraft* now uses a more complex set of Blizzard Entertainment licenses, but the earlier TOS can be still accessed through www.archive.org. The original URL was http://eu.blizzard.com/en-gb/company/legal/wow_tou.html

14. See Reynolds and de Zwart (2010).

15. Wirman and Jones (2020). See also <https://www.theguardian.com/world/2020/apr/14/animal-crossing-game-removed-from-sale-in-china-over-hong-kong-democracy-messages> (accessed November 12, 2022).

16. End User License Agreement, *EVE Online*. <https://community.eveonline.com/support/policies/eve-eula-en/> (accessed March 29, 2022).
17. *World Anti-Doping Code*, article 10.9.1.2. Third violation is not the only way to end up with a lifetime ineligibility. http://www.wada-ama.org/sites/default/files/resources/files/2021_wada_code.pdf (accessed December 28, 2022).
18. See Abanazir (2018) for more on how esports are owned and organized and how their “source” rules are established.
19. https://support.steampowered.com/kb_article.php?p_faqid=589#appeal (accessed April 16, 2021).
20. The age limit of criminal liability in Olkkonen’s native Finland is fifteen, but that provided no recourse against the life ban.
21. See, e.g., <https://afkgaming.com/articles/csgo/News/3586-Jamppi-sues-Valve-for-over-euro250000-in-Damages-for-Banning-him-from-Majors> (accessed March 19, 2021). At the time of writing, the esports community is still in the process of establishing the bureaucratic institutions to regulate play. Bodies such as the Esports Integrity Commission ESIC (<http://www.esic.gg>) and the Arbitration Court for Esports ACES (<http://www.wesa.gg>) do not have an all-encompassing membership that would include, for instance, the executive owners of the various esports games.
22. Formerly SportAccord, as referred by Karhulahti.
23. <https://news.blizzard.com/en-us/blizzard/22833558/heroes-of-the-storm-news> (accessed March 19, 2021).
24. See, e.g., Reith (2007) on gambling, Anderson (2001) on violent games, and Laycock (2015) on role-playing games.
25. See Apter (1991); Stenros (2015).
26. See, e.g., Ayoub and Barnett (1965), Golightly and Scheffler (1948), and Berdie (1947) on descriptions of *The Dozens*. Content warning: These papers on Black subcultures were written in a more explicitly racist era.

27. *The Dozens* probably was not always consensual, and as an additional transgression, the insults were often aimed at people who had not consented to the game.

28. <https://medium.com/@dialacina/what-we-talk-about-when-we-dont-talk-about-natives-60f4af9ef675#.19opc3w67> (accessed July 14, 2019).

29. Simulation rhetorics is perhaps now better known as *procedural rhetorics*, as per Bogost (2007).

30. See, e.g., Mukherjee (2017).

31. *Inside Hamlet Player Letter 2*, from the 2015 premiere run.

32. <https://splinternews.com/cards-against-humanity-co-creator-sorry-for-transphobi-1793841994> (accessed March 17, 2021).

33. “China restricts young people to playing video games three hours a week.” *The Washington Post*. <http://www.washingtonpost.com/video-games/2021/08/30/china-video-games-kids-ban-weekday> (accessed March 19, 2022).

34. Numerous scholars in multiple disciplines have formulated their own conceptualization of the semi-separateness of play (e.g., Riezler 1941; Bateson 1955/2005; Goffman 1961; Moreno 1965; Berger and Luckmann 1966; Letcher 2001; Klabbers 2006; Montola, Stenros, and Waern 2009; Harviainen and Lieberoth 2012; Stenros 2015).

35. Furthermore, no scholar we are aware of advocates for this strong boundary hypothesis—even if many scholars certainly have criticized the perceived disconnectedness of magic circle (e.g., Castronova 2005, 147–160; Taylor 2006, 151–155; Malaby 2007; Pargman and Jacobsson 2008; Consalvo 2009).

36. Cf. Lastowka (2009, 2011); Castronova (2005).

Chapter 5

1. *Official Basketball Rules 2010*: Basketball Equipment. <http://www.fibaamericas.com/files/informes/BFA540616DC64F719B0257227BAD492D.pdf> (accessed December 4, 2022).

2. Björk and Holopainen (2005, 23); see also Goffman (1961, 38–39).
3. This would be done informally in traditional *chess*. In a game governed by the *Laws of Chess*, tripping over a chessboard does not count as an act of moving a piece (as in article 4) but as an *irregularity*, as in article 7. *Laws of Chess*. <http://www.fide.com> (accessed May 26, 2018).
4. *Warhammer 40,000*, 9th edition, “Wobbly Models” on p. 199.
5. International Tennis Federation, *The 2018 Rules of Tennis*. <http://itf.uberflip.com/i/920624-2018-rules-of-tennis/> (accessed December 4, 2022).
6. *Guidelines for FIS Ski Jumping Judges*. https://assets.fis-ski.com/image/upload/v1604928916/fis-prod/assets/Guidelines_for_Jumping_Judges_2020.pdf (accessed January 5, 2022).
7. *Profile: Mark Thatcher*. http://news.bbc.co.uk/2/hi/uk_news/politics/3597196.stm (accessed December 21, 2022).
8. *Dakar Rally* can be seen as an *open system*. There is a system of formal sports rules that accepts “inputs” from the system of material reality (see, e.g., Salen Tekinbaş and Zimmerman 2004, 96). The practical framing depends on the game at hand and the purpose of scholarly inquiry.
9. E.g., <http://www.telesurenglish.net/news/Soccer-Turf-Women-in-the-US-Have-It-Much-Worse-Than-Men-20151209-0043.html> (accessed December 4, 2022).
10. E.g., Myers (2010); Juul (2005).
11. E.g., Costikyan (1994); Sicart (2009); Upton (2015).
12. At the time of writing, Markus works as a lead designer and a junior gameplay programmer on *Friends & Dragons*. The discussion concerning this abbreviated code example is based on firsthand experience.
13. See Karlsen (2011), Choontanom and Nardi (2012), and Wenz (2012) for more on theorycrafting.
14. *Official Book of TG Guidelines*. https://www.twingalaxies.com/wiki_index.php?title=Policy:Official-Book-of-TG-Guidelines&s=0a64af7feac7e380aa998494683def7 (accessed December 4, 2022). The most famous dispute being adjudicated by Twin Galaxies concerned Billy Mitchell’s

high scores in *Donkey Kong*, as documented in the film *The King of Kong: A Fistful of Quarters* (2007, dir. Seth Gordon). Twin Galaxies determined that Mitchell had not achieved his world records on the original *King Kong* arcade hardware, as required by the rules, and consequently he was banned from Twin Galaxies, and all his high scores were removed, including his world-first perfect score of *Pac-Man*.

15. These practices that exploit probably unintended properties of game code are demonstrated on numerous speedrun videos, for example, *How is this speedrun possible? Super Mario Bros World Record Explained*. http://www.youtube.com/watch?v=_FQJEzJ_cQw (accessed May 26, 2018).

16. In *A Treatise of Human Nature* (1739).

17. See, e.g., Stilley (2010).

18. This is common in online culture more widely, as seen, for instance, in practices like trolling, search engine optimization, Wikipedia edit wars, and so on. See Stenros (2010).

19. E.g., Smith (2006, 23–24); Aarseth (2007); Stenros (2015).

20. *Rules of World Boxing Association*. <http://www.wbaboxing.com/wp-content/uploads/2019/04/WBA-Rules-adopted-in-Bulgaria-6-11-15-Updated-2019-1.pdf> (accessed January 23, 2022).

21. In boxing, what is at stake (aside from winning) is losing consciousness, whereas in drinking games, the stake is losing control over one's own body, and loss of consciousness is only one part of this (see Sotamaa and Stenros 2019).

22. Rule 16, *ITF Rules of Tennis*. <http://itf.uberflip.com/i/428396-2015-rules-of-tennis-english> (accessed January 23, 2022).

23. *Rules of Wheelchair Tennis* exception b, in *ITF Rules of Tennis*.

24. *IWF Technical and Competition Rules & Regulations 2022*, “Regulation to 6.4 Weigh-in” <https://iwf.sport/wp-content/uploads/downloads/2022/11/IWF-TCRR-2022.pdf> (accessed May 11, 2023).

25. Rule 2.2.1 of the World Athletics *Book of Rules*, book C, section C3.6, *Eligibility Requirements for the Female Classification*. In force November 1, 2019. <http://www.worldathletics.org/about-iaaf/documents/book-of-rules> (accessed May 18, 2020).

26. *Women's Flat Track Derby Association Statement About Gender*. <https://resources.wftda.org/womens-flat-track-derby-association-statement-about-gender> (accessed March 19, 2022). See also Fletcher (2020). The men's Roller Derby Association has issued a similar statement that also includes nonbinary genders: *MRDA Non-Discrimination Policy*. <https://mrda.org/resources/mrda-non-discrimination-policy> (accessed March 19, 2022). It is worth noting that these policies are in conflict with the policies of Fédération Internationale de Roller Sports (FIRS), which is the international governing body of roller sports. FIRS has close ties to the Olympic committee and thus follows their strict guidelines on gender and hormone use.

27. See Thibault et al. (2010) on men outperforming women. Women tend to outperform men in ultra-distance duration contests in swimming, running, and cycling; see Schultz (2018, 70).

28. See Carlson and Greaves (2011).

Conclusions

1. Wittgenstein discussed *family resemblance* and uses games as an example of something that does not have a common core: different kinds of games share some features, but there is nothing that unites all of them (this has been debated in game studies; see Suits 1978; Arjoranta 2015). In this book, we have not concentrated on defining games as a category but looking at how rules constitute games, and Wittgenstein's idea is certainly one way to account for how different instances of a game can be considered one game: "we see a complicated network of similarities overlapping and criss-crossing: sometimes overall similarities, sometimes similarities of detail" (Wittgenstein 1958).

2. One would have to acquire material implements similar to those being used in 1893 and to educate referees with that historical culture of refereeing. One would need to reenact social norms governing play and even reproduce the external legal circumstances from the era of Lord Frederick Stanley of Preston. Ephemerality of games is not only an ontological but also a practical challenge in the field of game heritage (see, e.g., Nylund 2020).

3. Of course, scholars like Brian Sutton-Smith (1972) and Thomas Malaby (2007, 103) argue that games cannot be reduced to their rules, since games are grounded in human practice and play does not need to follow rules.
4. *Rules WJPC. World Jigsaw Puzzle Championship 2022*. https://www.worldjigsawpuzzle.org/users/wjpc_rules.php (accessed December 27, 2022).
5. See, e.g., Karabekyan (2016).
6. Regulation 3.1a of *FIFA Anti-Doping Regulations* 2019 edition, in <https://resources.fifa.com/image/upload/fifa-anti-doping-regulations.pdf> (accessed May 25, 2021).
7. Rule 12.4 of *Regulations: 2018 FIFA World Cup Russia™*. www.uefa.com/MultimediaFiles/Download/Regulations/uefaorg/Regulations/01/87/54/21/1875421_DOWNLOAD.pdf (accessed May 11, 2023).
8. *Laws of the Game 2020/2021* by IFAB. <https://resources.fifa.com/image/upload/ifab-laws-of-the-game-2020-21.pdf> (accessed May 18, 2021).
9. *Laws of the Game 2020/2021* by IFAB. <https://resources.fifa.com/image/upload/ifab-laws-of-the-game-2020-21.pdf> (accessed May 18, 2021).
10. This list could be extended in many ways. It is presented here as an example, not as an exhaustive analysis.
11. See, e.g., *FEI Equine Anti-Doping and Controlled Medical Regulations*. https://inside.fei.org/sites/default/files/EADCMRs-effective%201%20January%202021-22Feb2021-Final-Clean_with%20correction.pdf (accessed March 30, 2021).
12. E.g., the *Formula 1 Technical Regulations*. <http://www.fia.com/regulation/category/110> (accessed March 30, 2021).
13. *Formula 1 Financial Regulations*. <http://www.fia.com/regulation/category/110> (accessed March 30, 2021). While this sounds like a theoretical exercise, the rules became immediately relevant during the 2021 season: in October 2022, it was still a possibility that Max Verstappen could lose his 2021 championship to Lewis Hamilton if Red Bull was found to have breached the financial regulations.

<https://formula1news.co.uk/could-verstappen-lose-the-2021-championship> (accessed October 10, 2022).

14. *ITF Rules of Tennis, 2023*, rule 29. <https://www.itftennis.com/media/7221/2023-rules-of-tennis-english.pdf> (accessed May 11, 2023).

15. A similar analysis could be done in relation to the spatial boundaries of a game. The core game is played on the field and its immediate surroundings, but the preparatory and concluding activities take place far away from the field, in meeting rooms, medical facilities, and on other *football* fields around the world.

16. See also LeMieux and Boluk (2017); Carter, Gibbs, and Harrop (2012).

17. See <https://magic.wizards.com/en/articles/archive/news/depictions-racism-magic-2020-06-10> (accessed May 11, 2023).

18. Waters (2019).

19. See Poremba (2007).

20. Just after this manuscript was finished in December 2022 Sicart (2023) published another interesting take on the aesthetic value of rules.

21. <https://magic.wizards.com/en/game-info/gameplay/rules-and-formats/rules> (accessed March 19, 2021).

22. Rule III.A.1. in *NASPA Official Tournament Rules* (effective January 4, 2017). <http://www.scrabbleplayers.org/rules/rules-20161201.pdf> (accessed May 26, 2018).

23. https://witchards.com/books/player-handbook/#How_to_make_magic (accessed November 11, 2022).

24. Rule 18.2. *World Athletics Book of Rules*, book C, section C2.1 Technical Rules. <http://www.worldathletics.org/about-iaaf/documents/book-of-rules> (accessed October 9, 2022).

25. Paraphrased from *Twister* rules. <http://www.hasbro.com/common/instruct/Twister.pdf> (accessed October 10, 2022).

26. *1988 official rules of the Chinese Weiqi Association* rule 1.7.1. <http://www.cs.cmu.edu/~wjh/go/rules/Chinese.html> (accessed November 11, 2022).

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