

FROM MASHER TO MASTER: THE EDUCATED VIDEO GAME ENTHUSIAST'S FIGHTING GAME PRIMER

(SUPER BOOK EDITION)



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BY PATRICK MILLER

//////////////// **ACKNOWLEDGEMENTS** //////////////////

Shoutouts to the BEARcade, my old home away from home, and all the people who loved it (RIP).

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This ebook is freely available for download at www.shoryuken.com, so if you paid for it, you got ripped off!

I decided to release this ebook for free because I wanted to make sure that anyone even remotely interested in learning how to play fighting games could do so without worrying about money getting in the way.

If you feel like you got enough out of reading this that you want to give back, I'd ask that you do these two things: Share the book with everyone you know who might be interested, and find a way to support your favorite fighting game heads. Buy a t-shirt, organize a tournament, donate to help an underrated player make it to Evo. Support your local FGC!

(And, heck, if you offer to buy me a beer at a tournament, I won't say no.)

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All screenshots captured in gameplay of *Super Street Fighter II: HD Remix*, *Street Fighter IV*, and *Marvel vs. Capcom 2* by Patrick Miller. "Street Fighter", "Super Street Fighter II: HD Remix", "Street Fighter IV," and "Marvel vs. Capcom 2" are all registered trademarks of Capcom Co. Ltd.



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Introduction: Why You Should Learn How to Play Street Fighter



Remember *Street Fighter II*? Of course you do. Ryu and Ken, Hadoukens and Shoryukens (or “doukens” and “all-you-cans”). You probably played a bit of it an arcade, once, in the early ‘90s. Maybe you really got into it, or you know someone else who did. If you’re like most people, you played it a few times, thought it was neat, and then moved on with your life.

If that sounds like you, well, I am compelled to offer you my sincere condolences, because it turns out that *Street Fighter II* – or, rather, its genre of one-on-one fighting games – are quite possibly one of the finest activities a person could devote their time to.

Fighting games have long been dismissed by philistines as “button mashers”; that all you do is wildly jerk around an arcade stick and press buttons haphazardly until something happens. This is what people who are not good at fighting games say – probably because “speed-chess-poker-magic-the-gathering-rock-paper-scissors-fighting” is kind of a mouthful, and frankly, most of the people who think fighting games consist of mindless button-mashing never got deep enough into a fighting game to get to the speed-chess-poker-etc part to begin with. But that’s okay. You’re here now, reading this, and that’s what matters.

You might be reading this simply because you want to learn how to become reasonably competent at a fighting game. That’s a pretty good reason! But I am calling this book “The Educated Video Game Enthusiast’s Fighting Game Primer” because, well, I know plenty of Educated Video Game Enthusiasts who ought to learn more about fighting games, but don’t have a clue as to how to go about doing it. (This book is actually



an extended version of an earlier article called “The Educated Gentleperson’s Fighting Game Primer”).

Odds are, if you’re reading this, you’re probably big into video-games; maybe you’re a devoted enthusiast, maybe you’re a journalist, maybe you’re an academic or amateur scholar of some sort, maybe you even make your own videogames. If you are significantly invested in the production and consumption of videogames as a medium, on a personal or professional level, you ought to know something about competitive fighting games as a matter of basic literacy.

Learning how to beat another person in a fighting game involves understanding elements of game design, psychology, programming and basic machine input/output, human physiology, motivation, and several other serious bodies of human knowledge — and then applying them to go beat down your buddy’s virtual avatar. You must train yourself to understand complicated situations and react to them with complicated physical movements within fractions of a second.

Perhaps most importantly, you must learn how to get better at something: How to absorb good behaviors and discard bad ones, how to push yourself, how to practice, how to diagnose problems and fix them. I think it’s a good thing for people to do, period. MMA legend Renzo Gracie once said “Fighting [games] is actually the best thing a man can have in his soul ¹.”

As someone who works in and around the games industry, I can directly trace whatever career success I’ve had (for which I am incredibly grateful) to my early love of fighting games. Studying *Street Fighter* felt, to me, like seeing the Matrix as ones and zeros for the first time. Now, I can understand that not everyone feels the same about *Street Fighter* as I do — *Street Fighter* eventually led me to pursue actual fighting as another all-consuming hobby, so clearly I’m just kind of wired to like that kind of thing — but I maintain that a functional understanding of competitive fighting games is a worthwhile asset for any budding professional in the games industry.

The most fundamental thing that sets games apart from other artistic media — books, film, whatever — is that games demand a physical

¹ He didn’t actually say the “games” part, but I like to think he would have, if he were any good at *Street Fighter*.

interaction between the text and the player. These days, we're seeing games do all kinds of interesting things, from experimental narratives to designs intended for wildly different control schemes to engines so powerful they accurately model the way light works in real life.

But amid all that, we've found it very challenging to develop games that express sheer joy at the level of the physical input itself. Fighting games *require* you to be proficient at the physical aspect in order to enjoy them, and as such I think they really do address the essence of the videogame as a medium.

Moreover, the process of playing a fighting game against another person can essentially be considered "game design, in reverse". Playing a fighting game means you're studying a game down to individual pixels, animation frames, processor cycles, and its player (your opponent) down to behavioral patterns, tics, and state of mind — all in order to make the game *as miserable as possible for the other person*.

Your job is to take the tools the designers have given you — characters with moves — and turn the game into a sheer mess of broken parts that no one ever wants to play again. "Look at what you've made, designer," you say, "Do you think this imbalanced, hackneyed crap is worth pouring my life into? Try again."

Your opponent is merely a canvas upon which you may paint with your brush of pain; the designer who dared suggest that this game was worthy of your time is the audience. (Of course, your opponent is trying to do the same thing to you, and somehow, both of you have a good old time and the game developers make some money.) Perhaps it's not quite surprising why established fighting game veterans seem to be breaking into the industry; all they'd have to do in the office is, well, the opposite of what they do in the arcade.

And it's not just about crushing people beneath your heel, either. A great fighting game only gets more and more fun as you put more time into it, no matter how old or outdated it is. It is something that can teach you more about yourself, and connect you to people in ways other games or hobbies can't. It's a thing that can make you feel better about yourself as you meet your goals and set new ones. It can actually make

you a better person.

So read this book. Maybe you'll be bitten by the bug, maybe you won't. If you've ever watched **The Daigo Parry Video** and thought, "Man, I should learn how to play a fighting game sometime," congratulations: Now's the time.

/// HERE COMES A NEW CHALLENGER!

I am convinced that fighting games are one of the most interesting things going on in videogames, and that they have been for a long time. I get the impression that lots of other people, smart people who often think a lot about videogames, think so too, but the relatively high barrier to entry intimidates them. Which is fair. I didn't get my driver's license until I was 26 because I was intimidated by the DMV, so, you know, priorities.

Here is the thing: Fighting games are not actually that hard to learn how to play, and play somewhat competently. But they're very hard to *teach*. Most of us battle-scarred veterans learned how to play games by getting our asses beat for years before we even began to understand what we were doing wrong. That is not the way it *has* to be, mind you; just the way it is right now. Learning how to play fighting games by yourself (or with someone just about equally clueless as you) is kind of learning how to *actually* fight by yourself; that is, stupidly hard.

What makes things even harder is that literally the vast majority of meaningful strategic decision-making in a fighting game is locked away from you until you are able to physically and mentally perform at a certain level. *Starcraft* is one of the most physically taxing game franchises out there, but it's comparatively easier to get people hooked with a taste of the actual Game by teaching people different openings and game strategies and unit compositions, and then remind them that all the theorizing isn't worth jack shit if they can't attain a minimum level of physical execution. With *fighting games*, it's like you have to basically take it on faith that there is an amazing game available to you after you spend years of your life training with the Shaolin monks.

It's almost like baseball; in baseball, there is an entire major section of gameplay that literally cannot happen until you learn how to hit a small leather ball hurtling at you at 90+ miles per hour with a stick that isn't that much wider than the ball. Until you hit that ball (which, if you're good, happens about once every three at-bats), pretty much no one else on the field is supposed to do anything. So it is with fighting games — you have to master a set of fundamental physical and mental skills before you can access *the “real”* game lying underneath, and without someone else to guide you through that, it can take a long, long time to get there.

What follows is my attempt to give you a crash course in fighting games. I'm writing this because people frequently express to me the desire to learn how to play fighting games in the same sense that people tell me they wish they had time to cook more often or work out; if I write this, then I can just link it the next time you express this sentiment and save us both the trouble. Luckily, *right now* is probably the easiest time in the world to learn how to play fighting games, so really, you have no excuse. I may not make you a champion, but if I can make you literate, that'll be enough.

Who I am: I am not a professional player, or coach, or a game designer, or anything like that. Far from it, in fact. I've played fighting games seriously since about 2002 or so. I've taken my licks as a tournament competitor, but I've only won a crappy little *Third Strike* tournament at an anime convention at Cal State Northridge, and my prize was some *Street Fighter* anime DVDs (one of which I already owned). I've had the privilege of losing to some of the greats, but that's about it. But I do think very seriously about the process of developing new skills — how to learn, how to practice, how to teach — whether those skills are about games or martial arts or whatever.

///ABOUT THIS GUIDE

There are many ways to learn how to play fighting games. For me, I spent years playing at the UC Berkeley BEARCADE (RIP). My game of choice

was *Capcom vs. SNK 2*, which, as an introduction to fighting games, is kind of like learning a language by memorizing its dictionary and hoping for the best. As a fighting game, CVS2 is splendid. One of the best, really. But there is simply *too much stuff in it* — too many characters, options, tools, etc. — which makes it very hard for a budding fighting game player to improve.

If something isn't working, a newbie's first instinct is to think, "Well, I'll change to one of the other 40-odd characters", when it really should be something like "Hey, I should probably not jump so much."

As a result, I spent years messing around with CVS2 — and by "messing around", I mean "playing a lot" — without ever getting that much better. Then, one day at the BEARcade, we were running through our usual \$1-entry weekly tournaments, and *Super Street Fighter II Turbo* needed one more person to have a full 8-man bracket. A guy named Eric was the favorite to win, and he encouraged me to enter. "Okay," I told him, "But I don't know how to play this game."

"Easy," he said. "Just pick Original Sagat."

In *Super Turbo*, you can pick "original" versions of the character cast that have slightly different movesets and properties than the normal versions. O. Sagat, as it turns out, has a fireball that is downright oppressive in its speed and recovery. So I picked O. Sagat, threw fireballs, and when people tried to jump over them, I'd hit them with Sagat's invincible uppercut move.

Simple and effective — and yet, it's something I had never really thought about when playing CVS2, because when you throw fireballs in that game, your opponent has half a dozen options to deal with them. Up until that point, I had never thought about how the fireball and Dragon Punch were supposed to complement each other, because I had been playing too many games which tried to mix up the fundamental blueprint established by the original *Street Fighter II* series by adding new and different elements to the mix.

I ended up getting second place. At that point in my fighting game

career, this was the best I had ever done in a tournament before. I continued to mess around in ST for maybe another week or two after that, and then went back to CVS2 — and found that I had, mysteriously, gotten better at that, too. Looking back, I think it's because CVS2 is simply ST with a whole bunch of additions and abstractions and options layered on top of it, and I had mistaken those additions for *the game itself*. After coming to understand the basic game interaction — fireballs, jumps, Dragon Punches — everything else just kind of *made sense*.

In this guide, I'll attempt to recreate that approach. We'll start by dissecting about 10 seconds of gameplay that contain pretty much everything you need to understand about fighting games, and then we'll gradually unpack the underlying concepts in more detail from there. There are other people out there who will try to teach you about fighting games in other ways. This is my way, because it's how I learned to play them. I have played fighting games for a long time now, but I consider that moment to be when I started *learning* how to play them.

///A NOTE ON MATERIALS

This guide will mention a few games, but we're mostly going to be practicing in *Super Street Fighter II Turbo HD Remix*, so grab that on your Xbox/PS3. This game is actually an updated version of the last game of the *Street Fighter II* series (that's *Super Street Fighter II Turbo*) so if you want to grab a copy of that instead, you'll be good. Also, you'll want a glossary handy in case you come across some unfamiliar terms; I recommend the Shoryuken.com Wiki Glossary: <http://wiki.shoryuken.com/Glossary>

You do not need an arcade stick to be good at fighting games! There are plenty of people who play with a gamepad, even at the top level of competitive play. If you can afford it, though, I'd recommend learning with a stick from the very beginning. These games were designed to be played with arcade sticks; it's the right thing to do. Any variant of the Mad Catz TE (which typically run about \$100 or so, though you can find them cheaper on Craigslist and such) is a good place to start.

If you don't already have a stick, don't wait to get one before you

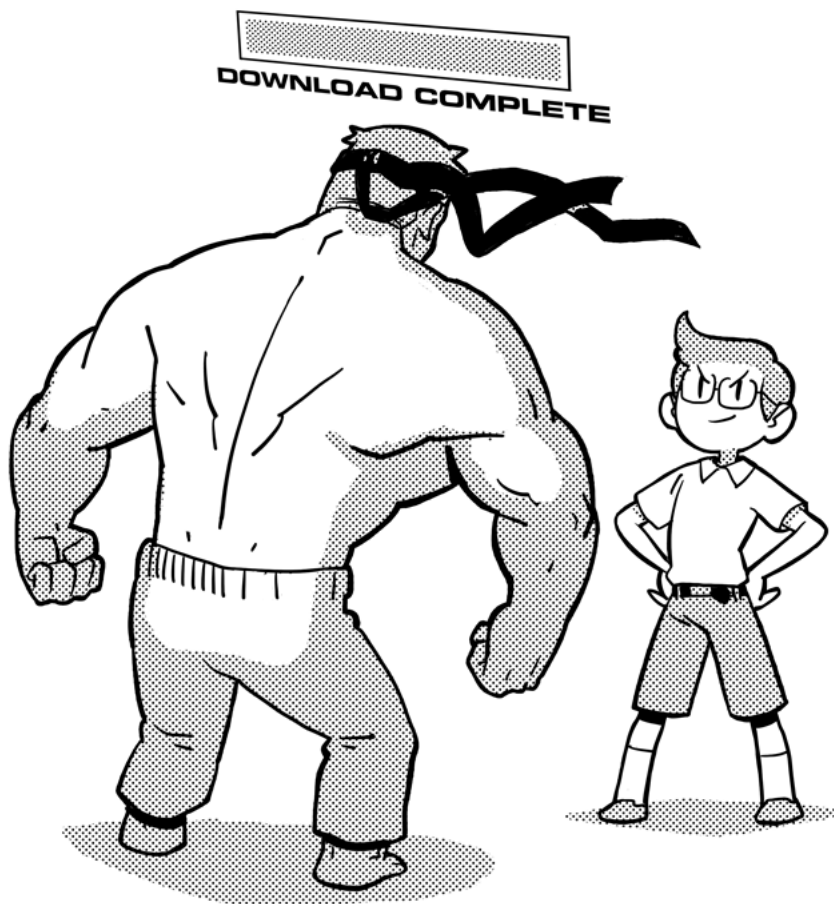
start working through the rest of this book! Just start out with whatever you have handy. At the advanced level, there are lots of technical nuances about these games that are much easier to understand if you know how to use a stick and how they work, but you don't have to worry about that yet. Your preferred controller is your sword, your gun, the instrument of your will; what you like and why you like it, eventually, can say volumes about who you are and why.

Fighting games are highly physical endeavors. In many cases, your success or failure depends on your ability to see something coming and perform a rather complicated move with utmost accuracy down to fractions of a second. For example, the difference between throwing a fireball while walking forward and performing a Dragon Punch is entirely based on when you press your punch button; in the former case, you want toward, down, down-toward, toward, punch, and in the latter case, you just want toward, down, down-toward, punch. It's easy to get one when you wanted the other if you are not clean and intentional with all your inputs.

When you're trying to perform complicated inputs with a standard gamepad, you're relying solely on your fine motor skills. Your fingers alone are responsible for doing *everything*, and since a gamepad is a relatively small device, the difference between something like walk-forward-fireball and Dragon Punch is a matter of hitting some very small switches that are very close to each other in just the right time.

With a proper joystick, you're using your entire upper body, and your fingers simply have to hit the right button at the right time instead of worrying about highly nuanced movements. If I need to perform a motion faster or slower, I can rely on my arm's larger muscles to help out instead of just trying to make my thumbs work at increasingly finer levels of detail. (Think about how hard it is to drive safely and legally in any *Grand Theft Auto* game: it's mostly because you're controlling a car with two thumbs on sticks instead of steering wheels.)

Chapter One: Everything You Need To Know About Fighting Games



Street Fighter II is intimidating. Understandably so: Any given character has somewhere between 18-24 different normal moves coming from six buttons (three punch buttons and three kick buttons that each perform different attacks depending on whether your character is standing, crouching, jumping up, or jumping forward/backward), a few throws, special moves, maybe even a super or two. **Note: For the purposes of this guide, I'll be referring to the six main attack buttons as light/medium/heavy punch or kick, not the traditional "Jab/Strong/Fierce Punch" and "Short/Forward/Roundhouse Kick", for the sake of clarity.**

At any given moment in *Street Fighter II*, I could conceivably perform upwards of 35-40 different actions. As such, the most useful thing a novice can do is simplify the game. If you learn to think of *Street Fighter II* as a series of predictable situations with optimal solutions, you can forget the 34 dumb choices in any given situation and focus on executing the one or two good choices. (There is a very good extra article about exactly this topic in the Recommended Reading section at the end, by the way.)

In rather broad strokes, *fighting games* are about imposing your will on your opponent. Your goal is to make a series of intelligent situations that constrict your opponent's options, forcing them to make ever-more-dangerous gambles until they do something you can punish them for. You want to put your opponent in these situations over and over until they lose, and then you put them in these situations *again and again* until they don't want to play with you any more. Basically, *you're* making the game as tortuous and awful as possible for your opponent while they try to do the same to you. It's a beautiful thing.

To begin: Fighting games are about making your opponent's character lose his life before your character loses hers. Characters in fighting games take damage when you hit them. A "hit" happens when one character presses a button to perform an attack, and that attack connects with the other character's body. These moves are usually different kinds of punches, kicks, and throws, but they range into more exotic stuff like flying uppercuts and fireballs.

While you may be seeing punches and kicks, however, the game

itself is just seeing different kinds of boxes moving around. When you hit your opponent with an attack, the game sees your character creating a box that does damage (“hitbox”) overlapping with an area occupied by a box that belongs to another character (“hurtbox”). In *Super Street Fighter II Turbo HD Remix* (hereafter referred to as HDR, because that’s a mouthful), you can actually turn on a view mode that shows hitboxes and hurtboxes.

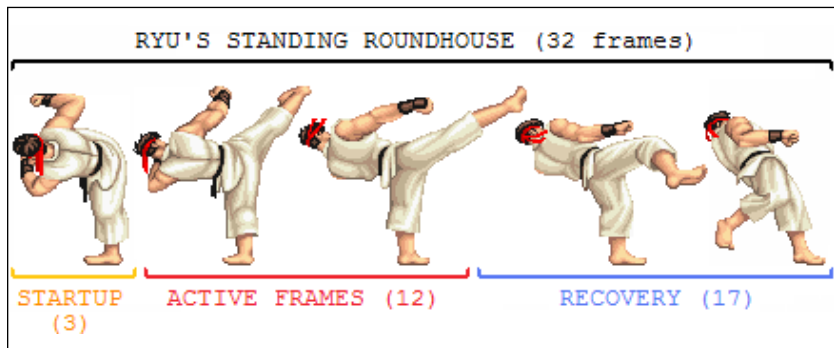


Blue Ryu’s hitbox (red) is touching Orange Ryu’s hurtbox (blue).

Press medium kick while Ryu is crouching, and you’ll see a red box surround his leg. You can see that when you use your normal moves, your character winds up a little bit in the start of the attack, then the hitbox shows up. If your box hits someone, they take damage and are sent into a “hitstun” state for a little while, during which they cannot move, attack, or block. If your opponent’s hitbox comes into contact with you either *before* your hitboxes show up, *after* your hitbox disappears, or manages to connect with your character’s hurtboxes while cleanly

avoiding your attack, then you'll get hit instead. If your hitbox hits someone while they're blocking, then they'll be sent into a "blockstun" state, where they won't be able to move or attack but take no damage (unless your attack is a special move, in which case they'll take a little damage for blocking it).

Each attack consists of three phases: "Startup," which is the part of the animation before you project a hitbox; "Active," which is when your attack projects a hitbox; and "Recovery" which is after your hitbox is gone and the move winds down.



This diagram illustrates the length of each phase of Ryu's standing heavy kick.

When you're just starting out with a new character, one of your first steps is to understand each move's advantages and tradeoffs in order to find out which moves are good in different situations. If a move has a really short startup animation, that means you can use it to stop slower attacks before they start and put your opponent under pressure; conversely, if a move has a slow startup animation, you'll have to be more careful about how or when you use it.

If a move stuns your enemy for a long time when you hit them with it, you can use it to start combos and do heavy damage to your opponent (if it hits) or use it to keep your opponent blocking and make it hard for them to start attacking you; if a move doesn't stun your enemy for so

long, your opponent might have the opportunity to hit you after blocking it, meaning you should only use that move when you're absolutely sure it'll hit. Some moves cover the area above your character's head, so they're good for hitting enemies that jump at you; moves that extend far across the screen are good for keeping your enemy at range. And so on.

Note that every move in the game has an advantage and a disadvantage, depending on the situation it's used in. That doesn't mean all moves are equally good; there are some moves that are pretty useless or highly situational, and part of learning a fighting game is figuring out which ones are which. And remember: No matter how cool (or not cool) any given move may look, to the game it's just a different kind of box. So don't pay too much attention to how painful or flashy something looks; often, the coolest-looking moves are the ones you want to use sparingly.

Individual moves are the atomic unit of composition for a fighting game, but eventually your understanding of fighting games will grow to include effective combinations of moves that can work together to mask each others' weaknesses and synergize with each others' strengths in ways that encourage certain styles of play. But before we start understanding different styles of play, we should understand the basic character archetype from which all others are defined: Ryu, the Adam of fighting games.

///RYU vs. RYU

Ryu is the character that the entire genre of fighting games was designed around. *Every fighting game*, from *King of Fighters* to *Guilty Gear* to *Marvel vs. Capcom* to *Tekken*, can trace its design history back right to Ryu. So let's break Ryu down — and in doing so, break down pretty much every fighting game ever.

As it happens, pretty much everything you need to know about modern fighting games is right [here](#) in this exchange. We're going to dissect this in-depth, so go ahead and watch it a few times! And don't worry if you can't do all the moves with the precision or timing that you

see in this video — we’re going to start by analyzing the game flow, and get to the physical execution part later in this book.

Also, I want you to keep one thing in mind: Fighting games are, at their most basic level, really fancy versions of Rock, Paper, Scissors. Any given move in a fighting game is defined in part by what it wins against, what it loses against, and what it draws even against. As you go through this next section, try to think about what each player is doing, and when those actions would win, lose, or draw.

Now, let’s start with Phase 1: Orange throws a fireball, Blue jumps over it, Orange hits Blue with a Dragon Punch.



Orange throws a fireball at Blue.

///Phase 1: Crouching Fireball, Hidden Dragon Punch

Ryu’s fireball and Dragon Punch are two attacks that are so interesting they basically defined a major chunk of the fighting game genre. The fireball has a fairly high amount of startup time before it turns into a

hurtbox. Once it is out, Ryu has to wait for a little bit before he can move freely, and then he can move and attack at will. Depending on which punch button the Ryu player uses to perform the fireball, the fireball's hitbox could be only halfway across the screen or almost all the way across by the time he recovers.

Once Ryu recovers from throwing the fireball, he basically has the ground-half of the screen covered. This fireball leaves his opponent with the following options:

- ///**Get hit by it**, leaving him in a short amount of stun and taking a bit of damage,
- ///**Block it**, so he takes less stun and damage amount of damage,
- ///**Respond with a fireball of his own** to cancel it out, so neither player takes stun or damage,
- ///**Jump over it**, avoiding the fireball entirely and opening up an opportunity for a counter-attack.

Essentially, throwing a fireball means putting yourself at risk in the immediate moment (by performing an attack with a long startup period) in order to gain an advantage once it's out and covering a whole bunch of screen space.

So Orange threw a fireball at Blue. How is Blue supposed to find the best option available to him? Well, we'll start by looking for the ideal outcome: Blue wants to avoid taking damage or being stunned. That means that Player 2 can either respond with a fireball to cancel out Player 1's fireball, or jump over it to avoid it completely.

Now, at the beginning of Phase 1, Blue is standing about 1/2 to 2/3rds of a screen-length away from Orange. At this range, it would probably take Blue too much time to a) realize that Orange is throwing a fireball, b) decide to throw a fireball, and c) successfully execute the fireball motion in order to cancel the first fireball out.

If Blue tried to throw a fireball, he'd probably end up getting hit by the first fireball before his own fireball had arrived on screen, or maybe he'd successfully cancel it, but would still be a little bit behind Orange, because Blue started his fireball after Orange did, meaning Blue will recover after Orange — which leaves Orange with time to follow the fireball up with something else, like walking up to Blue and hitting him, or throwing another fireball. So Blue decides to jump at Orange and hit him with a jumping kick.

Unfortunately, this is where the Second Interesting Move In Fighting Games comes in: The Dragon Punch. The Dragon Punch is basically the anti-fireball; where the fireball sacrifices the present for the future, the DP borrows against the future in favor of **RIGHT NOW**. Upon completing the DP motion, Orange is invincible for the beginning of the move; within a fraction of a second, he absolutely owns the space occupied around his fist.

Once Orange hits Blue with the Dragon Punch, he knocks Blue into the air and sends him into a “knockdown state”, where he can’t do anything until he gets back up off the ground. Of course, the DP has plenty of recovery time; if Orange didn’t hit Blue cleanly with it, then Blue



Check out the hitboxes on that Dragon Punch!

could have punished Orange when he came back down to the ground.

The Dragon Punch is the great momentum-breaker; its near-instant activation time and ultimate priority mean that, basically, if you know that your opponent is going to do something, you can beat it with the Dragon Punch. Your opponent can keep you pummeled under a barrage of fireballs and well-timed moves designed to keep you blocking, but one properly-timed Dragon Punch will reverse the momentum entirely and put you back in the game. However, if you **miss** a Dragon Punch, you might well lose the game. High risk, high reward.

So, to recap Phase 1: Orange throws a fireball. Blue reacts by trying to jump over the fireball and gets hit with the Dragon Punch, sending Blue down to the ground, where he'll have to wait for a second or two to stand back up before he can do anything.



Hitting your opponent with a Dragon Punch puts them into a knockdown state.

That puts us into Phase 2, which starts with Orange jumping over Blue's

knocked-down body, hitting Blue with a jumping kick when Blue stands up. Blue blocks that jumping attack, performs a Dragon Punch of his own, and gets swept for his trouble. What just happened?

///Phase 2: Frame advantage and baiting the DP

Phase 1 ends with Blue recovering from the knockdown that the Dragon Punch caused. During this time, Blue can't take any damage (you can't hit an opponent lying on the ground), but he can't do anything, either. Remember that every attack has a certain amount of startup, and only a select few are invincible during that startup; Orange can use the knockdown period to maneuver himself into an advantageous position, which he does by jumping over Blue's knocked-down body, and starting his attack while Blue is still getting up.

Basically, after Blue gets knocked down, he stands up right into Orange's jumping kick. In this situation, Blue has the following options: **get hit**, **block**, or **try to Dragon Punch** Orange. In this case, Blue decides to block instead of going for the Dragon Punch (called a "wakeup DP" in this case, since Ryu is "waking up" from knockdown). But why block? The answer has to do with the reason Orange jumped over Blue before starting the kick. Jumping over your grounded enemy is called a "**crossup**", and it's a very important tactic for fighting games. But before we talk about crossups, we'll have to talk more about blocking.

In order to avoid damage, you can block attacks by holding backwards on the joystick. Some attacks must be blocked low (hold down-back) or high (hold back). In general, most crouching kick attacks must be blocked low, most jumping attacks must be blocked high, and most other moves can be blocked high or low. Note that in fighting games, *your inputs are dependent on your opponent's position*: "hold back to block" means "hold the joystick in the direction away from your opponent", so if you're standing on the left side of the screen and your opponent is on the right, you'll hold left to block, and perform a Dragon Punch by rolling the stick from right, to down, to diagonal down-right, and vice versa if your opponent is on the right stand and you on the left.

Blocking is hands-down the most important thing that a beginner can learn. Remember, your goal is to reduce your opponent's life meter to zero before she can get yours, and if you learn how to block better than your opponent can, you'll have a much easier time to do that! You can't lose if you don't get hit.

Now, let's go back to the example. When Orange jumps over Blue, he makes life harder for Blue in two significant ways. First, he makes his jumping kick harder to block, because Blue has to block in the *opposite* direction, since Orange is now on Blue's right side, not his left — that's the "crossup" I mentioned earlier. Second, he makes it harder for Blue to perform a "wakeup Dragon Punch" to counter the kick; the proper DP input is toward, down, down-toward, but when "toward" changes from "left" to "right" halfway through the input, it makes it much harder to properly perform. (Some games are more forgiving than others in this regard; *Street Fighter IV* is one of them.)

Even if Blue successfully executed the wakeup DP, depending on Orange's timing, there is a good chance that it would miss completely, because Blue would still be facing the original direction while Orange would be in the middle of jumping over him, meaning Orange would jump clean over Blue's Dragon Punch and land in time to punish Blue. For Orange, the crossup jumping kick is a very solid decision, because it's hard for Blue to punish.

Note that not all jumping attacks have this "crossup" property that lets you hit an opponent while you're jumping over them, though usually most characters will have one or two moves that make for good crossups. If Orange had jumped over Blue with a move that didn't have a hitbox which let him cross up, Blue simply wouldn't have to block that jumping attack and would be free to move once he was done standing up from knockdown. And sometimes, you might attack with a crossup move that makes contact when you're on one side, but the momentum from the jump carries you to the other, so they have to block your jump attack one way and your followup ground attack the other. Sneaky!



Jumping in with a crossup kick.

So Blue wisely decides that blocking is the Smart Thing To Do, and successfully blocks Orange's crossup jumping kick. Blocking the kick means Blue won't take any damage, which is a good thing, but he's not out of the fire quite yet; Blue is stuck in blockstun for a little while, with Orange standing right next to him. While Blue is recovering from blockstun, Orange can force him to block additional moves that could inflict minor damage ("chip damage", which is incurred by blocking special moves like fireballs and Dragon Punches) and extend his blockstun paralysis, or require a specific blocking input (a low kick that Blue must block by holding down-back, or an "overhead" punch which must be blocked by holding back — Ryu's forward + medium punch, for example), or walk right next to Blue and perform a throw, which is a fast, short-ranged attack that cannot be blocked. (Throws are really important! We're going to talk more about them later.)

Put yourself in Blue's shoes here, for a second: You just jumped over a fireball, got knocked down by a Dragon Punch, and were forced to block a jump kick that left you unable to do anything. Orange is standing

in front of you, but because you're still reeling from blocking that jump kick, you're at a disadvantage because you have to recover from blocking that kick, and Orange doesn't have to.

This means that your next opportunity to attack comes *after* you've recovered from blocking that kick, and you *still* have to wait for that attack's startup phase before your attack's hitboxes come out. In fighting games, we measure time in terms of animation "frames"; our games run at 60 frames per second. If Orange's jumping kick forces you to block for, say, 15 frames of animation, and you want to perform a crouching medium punch with six frames of startup immediately after you're done blocking, you'll need to wait a whole 21 frames (about 1/3rd of a second) for your hitbox to arrive.

That might not seem like a whole lot, but in *Street Fighter*, it's the difference between your crouching punch succeeding, and your punch getting stuffed by pretty much any attack Orange has. This is called "frame advantage" and "frame disadvantage"; basically, Orange's moves have put him in a situation where he has the "frame advantage" because he can start his moves before Blue can start his.

As I mentioned earlier in this section, Ryu has probably about 35 moves or so. In Blue's situation, however, pretty much all of his moves are really, really bad ideas, because they'll get stuffed by just about anything Orange does due to Orange's frame advantage. Right now, Blue can either a) continue to **block** and hope he makes it out with relatively minor damage, b) **get hit**, which is not really ideal, or c) try to perform a move. Of the moves that Blue has at his disposal, only one is fast enough to have a chance at beating anything Orange does. You guessed it — that move is the **Dragon Punch**.

Now, let me point out something here: As Blue is making his decision here, he's essentially trying to make an educated guess at what Orange is doing. After all, Orange landed right next to Blue after the blocked jump kick; neither player really is far enough to try and react to what the other player does (though eventually, given enough practice, they might be able to). Orange's frame advantage mean that he could decide to walk up and throw, or continue to attack, or even jump again,

and Blue will really just have to guess at how to respond accordingly.

Word Alert — Frame Trap: Sometimes, an attacking player will intentionally leave gaps in a blocked string of attacks to try and tempt the defending player into counterattacking, knowing that the attacker's frame advantage means almost any counterattacking move the defending player offers up will lose to the attacker's move; this is called a



So Blue is fed up with blocking and getting hit and generally being beaten up, and decides to go for a Dragon Punch. After all, that Dragon Punch will beat pretty much any button Orange decides to press: If Orange walks up for a throw, he'll get hit; if he tries to make Blue block a low kick, he'll get hit; if he jumps, he'll get hit; etc. And so Blue majestically soars through the air...and doesn't hit anything, because Orange didn't perform any attacks at all. Oops.



A baited Dragon Punch.

Folks, that's what we call a "baited" Dragon Punch. See, Orange correctly read the situation from Blue's perspective: Blue was tired of being on the defending end, and he knew that he had one option to reverse the momentum, which was the Dragon Punch. From Orange's perspective, he could either choose to attack, and risk getting hit by the DP, which would have knocked Orange down and shifted the momentum in favor of Blue; or sit there and do nothing, which would either reset the momentum back to even, if Blue decides to block, or give Orange another opening, if Blue decides to do a Dragon Punch. Basically, Orange took a conservative tack by not taking the risk of getting DPed, and his read of Blue turned out to be correct. Once Blue lands from the DP, Orange sweeps him, knocking him down again and bringing us into Phase 3.

///Phase 3: The close-range high-low-throw mixup

Poor Blue just can't catch a break. His perfectly-timed counter DP ended up getting baited and punished, and he gets knocked down *again*. This time, Blue blocks a few light jabs from Orange before getting thrown, knocking him down yet again and setting the stage for further pain. What happened?

At the beginning of Phase 3 (after Blue gets swept), he's basically in the same position as he was after getting DPed at the end of Phase 1, except this time he doesn't have to block the crossup jumping kick — though, depending on timing, Orange probably could have made him block that if he had wanted to. Once again, Orange has the momentum, because he can start setting up his attacks while Blue is still standing up from the knockdown.

Step into Blue's shoes for a second, now, and feel what it's like to be well and truly broken. You dodged a fireball and got hit; you tried to counter a whole bunch of attacks that never came and got hit. Orange is pretty effortlessly making you look like an amateur. You want nothing more than to be *out* of this situation, but Orange seems to be reading your mind re: potential get-out-of-jail-free Dragon Punch opportunities, so you've resolved to just hold back and block until the danger is over.

After all, he can't keep you in blockstun *forever*; block enough attacks, and Orange will eventually be pushed out far enough that the momentum will reset and you can take another stab at winning this game.

Which is why Orange throws you. Because he knows you're broken. He knows you can't muster the will to try another counter Dragon Punch. So he walks up, makes you block a jab or two, and then takes a step forward and throws you, dealing a solid amount of damage and knocking you down.



Setting up a throw with the jab ("tick throwing")

The throw is typically performed by walking next to your opponent and pressing forward or backward and heavy punch or kick. (Some characters have additional throws as well, but everyone has those two.) Throws exist to stop people from thinking of blocking as an invincible wall behind which they can hide from attacks. As it turns out, blocking attacks gets pretty easy pretty quickly; you just crouch-block everything except for jumping attacks and "overhead" attacks (standing attacks which force you to block high), both of which you should be able

to react to if all you're thinking about is blocking.

By adding throws into the mix, the attacker gets to crack a determined blocker by making him block one jab, then throwing him; or making him block two jabs, then throwing him; or three, or zero. A determined blocker can escape a throw (called "teching a throw") for low or zero damage, depending on the game, but in order to do so they basically need to go for a throw at the same time or slightly later than the attacker's throw, which is tricky. Orange forced Blue to block a fast, light attack, then threw him. This is called a "tick throw".

When Ryu knocks you down and stands right next to you, he has a whole bunch of options: He can make you block low, he can make you block high, or he can throw you. As the defender, your job is to either **Dragon Punch** (at *just* the right time), or defend the incoming throws and attacks until you see an opening to counter-attack or escape to safety. This is known as a "high/low/throw mixup"; the defender is basically put into a situation where he probably won't have time to *react* to seeing what the attacker does and defend accordingly, so he has to guess whether the attacker is going for a high attack (block high), low attack (block low), or throw. Even worse, the attacker is forcing the defender to make these decisions at an extremely fast rate; if Orange forces Blue to block three jabs, he could have easily at any point made one of those a low short kick, or a throw attempt, or ended the string with a high attack. Obviously, as the defender, you want to avoid these situations as much as possible. In this case, Blue got thrown, which resulted in moderate damage and yet another knockdown.

Phew! We just analyzed a mere nine seconds of high-speed decision-making, and all of that started from one fireball. One humble fireball, coasting across the screen, enabled Orange to keep Blue constantly on the losing side of the decision-making process. By now, you can see how that happened. But why'd Orange throw the fireball in the first place?

///Phase 0: Fireballs, footsies, and jockeying for momentum

Earlier in this article, I described the art of playing fighting games as, more or less, “making the game as miserable an experience as possible for your opponent”. You can see how Orange did that; he threw a fireball that got Blue to jump, and that one ill-timed jump sent Blue into a cascade of unfair decision after unfair decision. The right fireball at the right time gave **Orange** command of the match — in other words, **momentum**.

But how do you get that momentum? Certainly not by throwing fireballs willy-nilly; if Blue had predicted the fireball and jumped in earlier, he could have easily landed a damaging combo into a knockdown and sent the momentum in his favor instead. The art of jockeying for position is where much of the beauty and skill of fighting games comes into play; recently, people have been calling it “the neutral game”. We can broadly define **the neutral game** as “the process of turning an equal situation into an advantageous one”.

Understanding the neutral game is important for a budding fighting game player because, frankly, this is where you lose the game; it doesn’t matter how good your combos are or how clever your high-low-throw mixups are if you can’t get that first knockdown you need to set them up. And when you start playing *fighting games*, it’s easy to focus on spiffy special moves and combos without thinking too much about how to create openings to land them.

Let’s travel back to the beginning of the match we watched earlier and break down each character’s options. From the very start of the match, both players start at a range referred to as “half-screen”, where neither player can hit each other with anything except for a fireball or hurricane kick (Ryu’s third special move — don’t worry about this for now), and neither option is particularly good.



Ryu at half-screen distance.

When you're at half-screen, with no frame advantage, it's pretty easy to see a fireball starting up and punish it with a jump-forward kick and combo from there.

If either of the Ryus takes a step forward from half-screen, they'll be within range to sweep each other, which would give one of them the knockdown he needs to start his crossup / tick throw shenanigans in close or pressure with fireballs (more on this later). If he's walking closer *still*, he'd be within ideal range for fast, weak attacks (jabs and short kicks) to set up throws, but it's typically rather unlikely for both Ryu players to just close the distance like that without one sweeping the other first.

If one of them instead decides to take a step or two *back* from half-screen (we'll call this range "two-thirds"), he'll be in prime fireball-throwing range for one major reason: At this range, you're too far to react to seeing your opponent start throwing a fireball by jumping over, since by the time you're jumping over that fireball, the fireball-thrower has already recovered in time to Dragon Punch you out of the air, because

the fireball has had to travel further to reach you. In order to punish a fireball with a jump attack at this range, you'd have to start your jump around the same time they start throwing the fireball, if not earlier — which means you're anticipating a fireball, not reacting to it, and if that fireball doesn't come, you're probably just going to eat a Dragon Punch instead.

However, at two-thirds screen range, you are roughly around the area where you can respond to a fireball with a fireball of your own on reaction. You *will* recover after your opponent does, since you started your fireball later, giving your opponent a slight advantage, but that won't be a big enough advantage to punish your fireball; they might just be able to take a few steps forward (into half-screen range). You can also instead choose to jump straight up over the fireball, which is usually the smarter choice because you don't risk getting Dragon Punched (you're still too far away), and you don't have to block anything, meaning you take no chip damage or blockstun, so you recover slightly faster from dealing with that fireball.

Further back from here is the full-screen range. From here, neither Ryu can do anything except throw fireballs, and neither player is likely to get hit by a fireball from full-screen. From here, you can safely jump over an opponent's fireball, because even if you jump forward, their anti-air Dragon Punch won't hit because you're still too far away.

(By the way: It's worth noting here that all this knowledge about what is effective at any given range isn't something you're expected to know right off the bat. This is the kind of thing you generally have to learn the hard way.)

In a Ryu vs. Ryu mirror match, he doesn't have many good options at a neutral two-thirds or full-screen. He wants you to be at two-thirds when he has an advantage, because that puts you in situations where you're likely to either block a lot of fireballs or jump forward and eat a Dragon Punch, but in order to put you there, he's going to have to knock you down first.

So both Ryus start at half-screen, and both of them need to knock the other down — probably with a sweep. You might think that the best

thing to do at the start of the round, then, is “walk forward a step or two, then sweep”. However, remember that you’re both playing Ryu, and you both want the same thing — so it gets a little complicated. If your opponent knows that you’re going to walk forward and sweep, they could sweep first, which you’d probably walk right into since you decided to walk forward. Or they could walk backwards to stay out of range of your sweep, and if they see you whiff the sweep, they could hit the tip of your outstretched leg with their own sweep. Or maybe they stay out of sweep range while you’re hunting for a sweep and make you block a fireball. And so on.

This kind of game dynamic — dancing in and out of range while fishing for hits to turn into an advantage — is called “**footsies**”. If you can react to everything, you can be a god at footsies, but if you can’t, you’ll find that you have to rely on your ability to read your opponent in order to give you the extra time you need to play footsies well. After all, some people will be more aggressive, some less aggressive, some better at reacting and some less good at it. It’s like playing poker at a very, very high speed, since in every fraction of a second you’re making new decisions: Attacking or not attacking, staying at range or going closer/further, and so on.



Word Alert — Footsies: “Footsies” generally refers to a certain phase in a fighting game match where both players are dancing in and out of sweep range trying to land a knockdown and get the match momentum in their favor. It’s kind of a nebulous term with no 100% clear definition, but in general, when you hear that someone is “good at footsies”, it usually means that they’re good at winning exchanges in the “neutral game”, which is key for seizing control of the match.

If that wasn’t enough to twist your brain into knots, consider how hard it is to detect bluffs in high-speed poker; that is, players will often be doing things to trick you into overextending yourself. Watch

any high-level fighting game matches and you'll see them walk back and forth rapidly — they're quickly dancing in and out of range to bait the other player into, say, starting a fireball because they think it's safe when it's not, or pressing standing light kick at a range where it's unsafe to throw a fireball in the hopes that you'll react, think they're throwing a fireball, and jump in for a counter-attack (which will then get Dragon Punched). Basically, once you've learned what you're *supposed* to be doing (knocking your opponent down) you have to think about how to make it look like you're going for a sweep so that your opponent will try to sweep *you*, and so on. Mind games!

Once you get the knockdown, you can go for a crossup jump kick into some up-close shenanigans, or you can throw a jab fireball that is timed to hit them right when they stand up and immediately follow it with a heavy fireball — which starts a classic fireball-Dragon Punch trap that SF veteran David Sirlin describes in chapter 1 of *Playing To Win* (see the Recommended Reading at the end of this book) way better than I can, so go read it.

///FLESHING OUT THE FIGHTING GAME DESIGN SKELETON

Everything you've read about so far has been the essence of the modern 2D fighting game; the core upon which everything else is built. By itself, it is perfect — even better than Chess, perhaps, since Chess requires one player to move first. But it's not quite so easy to sell Ryu vs. Ryu: The Game, so instead we have not-Ryu characters and not-*Super Turbo* games to flesh out that core skeleton.

Ken, of course, is a tweaked-Ryu; in *Super Turbo*, he has a high-damaging throw (the “knee bash”) that gives him a lot of options after he finishes it, and a Dragon Punch that has more invincibility frames, less recovery, and more horizontal range, plus a few different kicks that give him more varied footsies options. However, his fireball doesn't travel as quickly or recover as quickly as Ryu's, making it harder for him to pressure opponents at far range or hold up against sustained fireball pressure from

characters with faster fireballs. Also, Ken's hurricane kick doesn't knock down on hit, meaning you don't get an easy mixup after comboing into it.

The sum of these combinations typically make Ken a better character for less-patient players looking to easily punish jump-ins and use knockdowns as opportunities to land throws. If you play a few hours of Ryu vs. Ryu and find your best success with close-in pressure games, give Ken a shot.

On paper, Guile might appear to be very similar to Ryu; he has one move that's good for beating jump-ins (flash kick) and a projectile (sonic boom) that's good for pressure. Guile recovers ridiculously quickly from throwing his sonic boom, but it travels rather slowly, and in order to perform the sonic boom, the Guile player needs to "charge" back (hold back or down-back on the joystick) for a moment, then press forward and punch.

So Guile can't win a fireball war with Ryu or Sagat, and he can't quite freely move around the screen because a good Guile player needs to always be holding down-back on the joystick to keep a sonic boom or flash kick at the ready. Much of the time, this means that Guile needs to use his low-recovery sonic boom to close the distance; if Guile can walk behind his sonic boom, he's basically covered by a shield.



Guile can use his low-recovery Sonic Boom to cover his approach.

If Ryu blocks that Sonic Boom, Guile is in range to throw; if Ryu throws a fireball of his own, the two projectiles will cancel out, but Guile can hit Ryu out of his late fireball recovery with his spinning backfist (toward + HP). In short, Guile's character design is a combination of his moves' properties (low-speed, low-recovery projectile) and the actual physical inputs, which restrict the player's freedom of movement (the charging mechanic).

And so on, and so on, for Balrog and Dee Jay and Blanka and the rest of the cast. Pretty much every character must have a different answer to the question: "What do I do when Ryu throws a fireball at me?" Some characters have excellent options for dealing with fireballs, but aren't so dangerous once they get in. Other characters have relatively bad options, but if they do get in, you're in trouble.

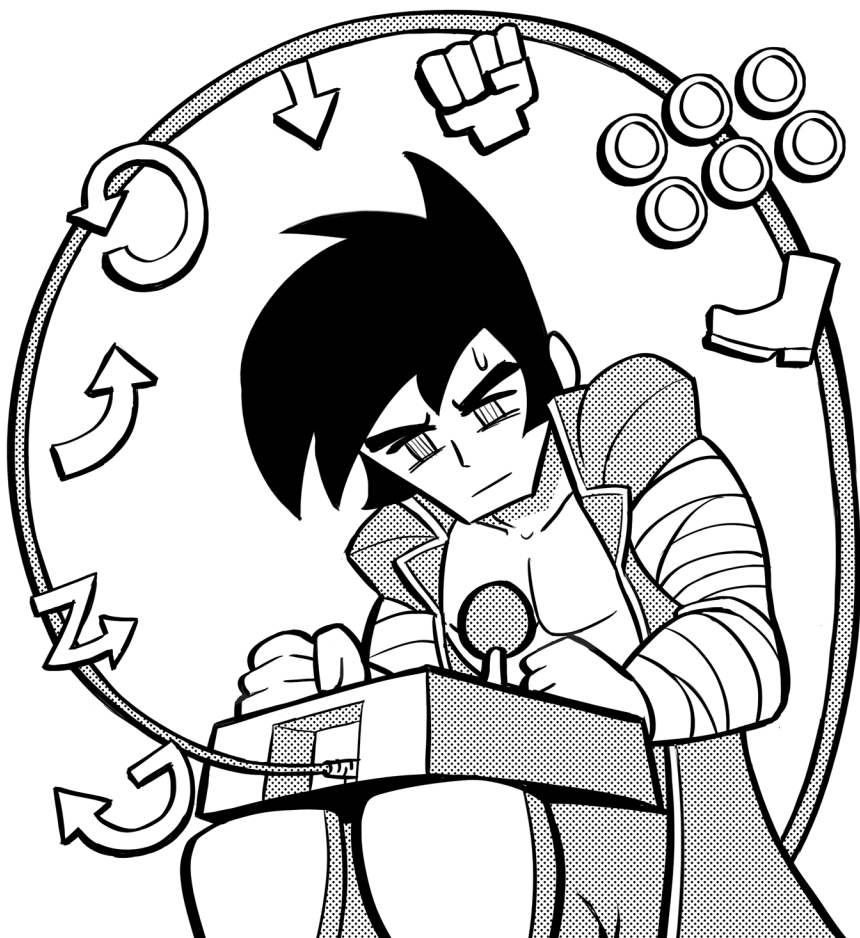
And it doesn't stop there. Each subsequent *Street Fighter* game sets up the Ryu fireball threat differently: The *Alpha* series makes you work harder to find openings, since you have more defensive options, but give you more tools to put together higher-damage combos. *Street Fighter III* pretty much got rid of the fireball-DP dynamic altogether by introducing the Parry system, which basically makes fireballs close to worthless — and so *Street Fighter IV* took part of that and made it weaker with Focus Attacks to make fireballs worthwhile but not game-defining. SNK's *King of Fighters* introduced the short hop, dodge, and roll systems to give players more options for getting around fireballs (each of which, of course, have their own respective weaknesses as well). Heck, we can even think of the Vs. series (*Marvel vs. Capcom* and such) as asking the question, "Well, what if Ryu throws a fireball at me in a two-on-two or three-on-three tag match?"

In case you were wondering: This is most likely why in practically every 2D fighting game ever, (okay, an exaggeration — but a LOT of fighting games) the "main character" for the game — the one that the first player starts out highlighting at the character select screen — possesses a similar fireball/DP moveset. That way you can start learning the game by playing Ryu, see what moves and systems the game

gives you to deal with the fireball/DP problem, and begin to build an understanding of that particular game's design and mechanics based on what you know about *Super Turbo*.

Congratulations: That's everything you need to know about *Street Fighter*! Well, not really, but it's enough to get started. I'm going to give you a little bit of homework: Go find a friend and play Ryu vs. Ryu for an hour or two, and then come back and read some more. From here on out, you can expect some homework at the end of each chapter.

Chapter Two: Beginner Execution



Broadly speaking, the skills needed to play the modern fighting game competently fall into two major categories; you must know **what** to do and **how** to do it. Knowing what to do means building your understanding of fighting games; knowing how to do it means developing your physical ability to produce the motions necessary to perform the right moves at the right time.

The two skillsets are more interconnected than you might expect. You may lose a match because you didn't hit the Dragon Punch you wanted, when you wanted it; maybe that was because you didn't properly execute the Dragon Punch input in time (a failure to execute), or maybe it was because you *saw* the right time to hit the Dragon Punch too late (a failure in understanding).

Most of this guide is going to cover the basics in a fairly execution-agnostic way; I will assume that you are capable of performing a fireball motion (down, down-toward, toward) and Dragon Punch movements with reasonable consistency (say, 80% of the time). If you can't yet do that, there's no shortcut for this — just go ahead and hit training mode until you can. Try setting certain goals for yourself, like doing five Dragon Punches in a row on one side, and then five on the other side, and moving on to fireballs only once you've managed to successfully do three sets of five Dragon Punches on each side. Think of it like a warmup before hitting the gym.

Does this sound like too much work for you? Stop reading now, walk over to a mirror, look yourself in the eyes, and ask yourself, "<insert name here>, have I ever done anything *truly hard*? Have I ever overcome a challenge? Do I deserve what I have, or has everything simply been given to me? In work, or in life — have I ever had a chance to fail? *Do I want that chance?*" If the answer to that last question is "Yes," then you may proceed to hit training mode. If the answer is "No": Stop reading.

Okay, that's kind of mean. The fact is that you can play fighting games, and even play them at a high level, without having mastered all the moves for every character. (Seth Killian was a legitimately competitive player in SF2: Champion Edition despite the fact that he couldn't perform Dragon Punches on the left side more than 40% of the time.)

But having a good base execution skillset early on will help you learn the game more easily, so I strongly recommend spending some time practicing and reading this section. In the long run, though, everyone who plays fighting games determines for themselves how much they want to spend time developing their execution instead of other skills; you can play characters that have very easy execution requirements and still have a lot of fun, but having better execution will open your game up to more possible options and strategies.

Many fighting game neophytes are intimidated by developing the execution skillset; it's not as hard as it looks. Once people have surpassed the first execution hump, they're often demoralized because they feel like since they know **how** to do the moves, they should win more – even though they don't really know **when** they need to do the moves in order to win. So: First we're going to get you past that initial execution hump – the **how** – and then we're going to go onto the **why**. And if you're already confident in your execution, feel free to skip this section (and revisit it later, when you discover how wrong you were).

///TEACH ME HOW TO DOUKEN, TEACH ME, TEACH ME HOW TO DOUKEN

The first draft of this book actually didn't include this section, because I simply took it for granted that everyone in the world could at least throw a fireball with reasonable accuracy. Then I discovered that my long-time friend Brendan couldn't hit 'em – by stick or by pad, by left side or by right side. So, in his honor, I'm going to offer some more basic execution advice.

Here's the deal: Fighting games are kind of like controlling little dueling robots. Your character will only do what you tell it to, and you tell it to do stuff with your controller. As you press buttons and move your joystick around, your controller will send those instructions to your character, which will then perform exactly as you commanded it to. Thing is, more complicated movements, like a fireball motion (down,

down-toward, toward, and punch) require a certain timing, because the game is constantly looking through your endless list of inputs and determining which sets of inputs correspond to a special motion.

In other words, it's not enough for me to just press down, down-toward, toward, and then punch to get a fireball; if I do that all too slowly, I'll just get those individual movements: Ryu will crouch, then stand up and take a step toward, and then perform a punch. If I do it quickly enough for the game to recognize that as one movement, rolling the stick from down to forward in one motion, then pressing punch, I'll get my fireball. And there's a certain amount of leniency to this, too; if I do a fireball motion that is slow, but the game still recognizes it as a fireball, I'll see Ryu crouch before he stands up to start the fireball, because the first input of the fireball is down, which makes him crouch, but if I do it quickly enough, I won't see it at all.

Yes, getting used to all this is demanding, but it's one of the things I find most rewarding about fighting games. After all, knowing *what* you want your character to do in fighting games is the easy part; you want it to do whatever it is you see top players doing when they're winning tournaments. But figuring out why *they* can do it and you can't is the hard part. Are you moving too quickly? Too slowly? Are you missing an input somewhere? Do you have too many inputs somewhere else? Learning how to troubleshoot and iterate your way through a problem in *Street Fighter* is a great exercise, because the only thing you can really trust is what the game is telling you – and learning how to identify problems based on simple feedback is a skill that comes in handy elsewhere in life, I think.

For example, let's return to the fireball example. When you try and perform a fireball, assuming you get all the inputs correct (that's down, down-toward, toward and punch), you should only see one of a few common outcomes: Ryu will throw a fireball (success!), Ryu will perform a crouching punch (failure), Ryu will crouch, then take a step forward and perform a standing punch (whoops), or Ryu will jump towards the opponent and perform a punch in mid-air (uh oh). Let's look at what would cause the different failure conditions.

Ask yourself: If you were trying to do down, down-toward, toward, and punch, what combination of inputs would cause Ryu to throw a crouching punch?

...

Yeah, you got it – you did the punch too *early*. You see, the button press at the end of the move signals the game to check your previous inputs and see if you performed a special move input instead of just moving around and pressing buttons for normal moves. If Ryu performs a crouch punch, it means you pressed the punch button too early, while Ryu was still crouching; you probably did down, down-toward, punch, toward instead.

Now, if Ryu took a small step forward and threw a standing punch instead, it means that you pressed the punch button too *late* – and so you got him to crouch (down), step forward (toward), and then do a punch. When it comes to performing special moves in *Street Fighter*, you usually want to have the button press come at the same time or ever-so-slightly after the last directional input. In other words, it's down, down-toward, and then toward *and* punch at the same time (or close to it).

And if Ryu jumps at your opponent and throws a punch in midair, you probably got a little overzealous with the controller; you're supposed to roll it from down to forward, but you might have ended up getting an up-toward input at the very end, causing Ryu to jump forward. Settle down there, tiger.

Now you've diagnosed the problem with your fireball. That's great! But your work isn't over yet – you still need to figure out how to fix it. This step is largely up to you, because it can mean looking at how you're holding your stick, how you're sitting, where your stick is located relative to the rest of your body, and other similarly nuanced factors. After all, you're training your body to produce the right movements at *just* the right time, down to a scale of milliseconds, so just about everything counts. (There are some combos that I can't perform if my legs or feet are crossed, for some reason. Ask me about it sometime.)

Part of the troubleshooting process can even include analyzing other sensory information. When I was teaching my fireball-less friend Brendan how to properly throw doukens, I had him close his eyes and listen to the sound of *my* fireballs; the rapid *click-click-click* of the stick hitting the directional switches, immediately followed by the meaty *slap* of my hand hitting the buttons, and then had him try it. His fireball success rate went from about 20% to 60% after that! You see, he's a musician, and he's used to thinking about his hands as something that produces a sound, so when I gave him a sound to imitate, his brain understood how to change his hands' behavior to more closely approximate my sound. I'd actually recommend turning all game sound *off* when you're trying to practice something that's giving you problems, because you may find yourself playing in loud rooms (like most tournament venues) where you'll never hear the game audio but you'll always hear your stick.

In fact, there's actually a really cool third-party app for the PC version of *Street Fighter IV* that teaches you how to perform combos by playing a sound cue each time you need to press a button, since you end up remembering a combo by learning the rhythm. Search for "necrophage SF4 combo trainer" on Google and you should find it.

/// INTRODUCING RYU'S MOVESET

For *Street Fighter* newbies looking to take the game somewhat seriously, Ryu is a great choice to start with; all his moves are really great, but *only* if you use the right move at the right time, so learning to play Ryu is a good way to lay a solid foundation for your fighting game skills. However, this also means that his learning curve is a little bit steeper than other characters: Blanka, for example, can move across the entire screen-length with one move (the horizontal roll), he's got a fast jump which makes it harder to hit him with a Dragon Punch on the way in, and he has a slide move (down-forward + heavy punch) which makes it really easy for him to punish fireballs up close.

Given two players at similar skill levels, a newbie Blanka player will probably beat a newbie Ryu player, because it takes a lot less work to access Blanka's options than Ryu's. That doesn't mean that Blanka is a better character than Ryu — quite the contrary. At high levels of play, Ryu is typically considered around the top five characters in the game, and Blanka in the bottom three, because Blanka's toolset is significantly less useful than most of the other characters' tools are once your execution is good enough to use them.

In other words, you should start out learning how to play Ryu, and accept that in the beginning, you'll often lose to people who pick not-Ryu characters that are easier to use. Even though you might be consistently losing against them, that doesn't mean you're not getting better — it just might take a while before you're able to surpass the execution gap between the two characters. Expect to lose a lot; it doesn't feel good, but it's an investment in your skills. After all, it's not like anyone gets to the top without losing a few tens of thousands games on the way there.

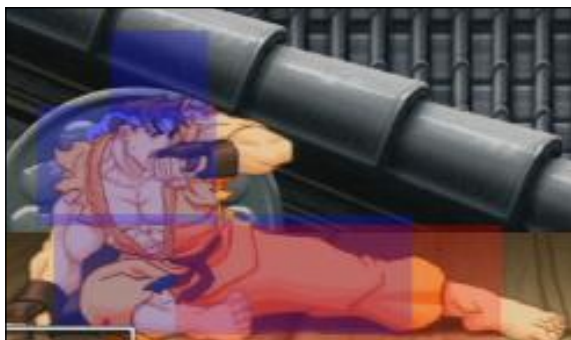
To start with, you should be completely familiar with all of Ryu's normal moves. In general, you never want to press a button without being 100% sure of the move you *want* to come out any more than you'd try moving a chess piece without knowing which ways it's allowed to move. So get used to all his standing normal moves, then his crouching ones, then jump straight up and get used to those, and jump forward and backward and get used to those. (Yes, all of them.) You may note that some of his moves change when he's standing right next to the opponent. This is normal, and something to keep in mind later, but not particularly important right now.

Of all his normal moves, you'll want to pay special attention to a few in particular:

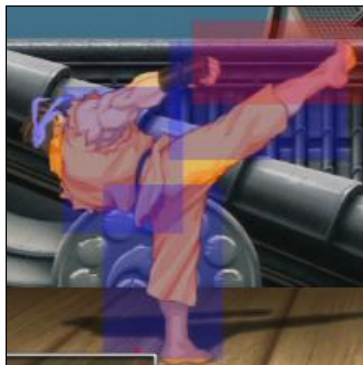
///Crouching HK is his sweep. It's a fairly long-ranged move which knocks down on hit and can be canceled into a fireball, which comes in handy when the sweep is blocked. You can also use this on people who are jumping in, but only if their jump would land on Ryu's foot.



///Crouching MK is a really good move for controlling space, since it's fast and can be canceled into any of Ryu's special moves. When your opponent walks toward you, it's a good bet you can nail 'em with a c.MK.



///Crouching HP and standing HK are both decent anti-air moves, especially when you know you don't have the time to pull off a Dragon Punch. Both moves have significantly more startup time than a Dragon Punch, so you'll need to do them earlier, and since they don't have any invincibility they're not guaranteed to beat all incoming attacks.



///Jump straight up + HK is a decent air-to-air move in case you jump up while they're jumping at you.



///Ryu's jump-forward MK and HK will cross up, so if you jump over an opponent and use one of his jumping kicks, your opponent will have to block it in the other direction.



///Jump-toward + MP is a good air-to-air move that hits twice and can be used for some more advanced combos.



Note that he has a few “command normal” moves as well: While standing, toward + medium punch gives you a slower two-hit punch

which the defender must block high (block while standing, not crouching), and toward + heavy punch gives you a dashing two-hit punch which moves Ryu forward quite a bit. The former is good for catching your opponent off guard, and the latter is good for being aggressive and simply moving Ryu around the screen faster.

Next, try Ryu's throws out by walking next to your opponent and pressing either forward or backward + HP or HK. Throws are a big part of Street Fighter, so you'll want to get used to being able to do this on command. Also note that Ryu can throw with forward or backward + MP, as well. Feel out the range from which you can consistently throw your opponent — if you're too far, you'll just get a punch or kick instead of a throw — and practice doing things like making your opponent block a crouching light punch, waiting for a split second, then throwing (a "tick throw," which you saw for yourself in the previous chapter). Also, in Street Fighter, you can't throw your enemy if they're in blockstun or hitstun.

Now you're ready to work on the fun stuff: Ryu's special moves. We'll start with the fireball: From standing, roll the stick from down, to down-toward, and then to toward, and when you hit toward, press a punch button. If you've done it right, you should hear the sweet sound of a "HADOUKEN!" Try it out a few times on both sides of the screen, because you'll need to be able to do everything when you're on the left-hand side of your opponent (meaning that "toward" is to the right), and when you're on the right-hand side of your opponent (meaning that "toward" is to the left).

Once you can do ten fireballs in a row on each side, try Ryu's red fireball, which is similar, except you'll roll the stick back, down-back, down, down-toward, toward + punch. These two motions are also often called "quarter-circle forward" and "half-circle forward," due to the shapes you're tracing out with the stick. Note that the function of both fireballs is more or less the same (the red fireball will knock down the opponent at certain ranges, which is handy) so don't worry about when to use the red fireball or the blue one yet.

If you can do Ryu's fireball consistently on both sides, you shouldn't

have any problem doing his Hurricane Kick: It's like the fireball, but backwards, and with a kick. The input is down, down-back, back + any kick button; do it right, and you'll hear Ryu yell out some unintelligible gibberish (it's actually "Tatsumaki-Senpuu-Kyaku" but it doesn't really sound like that until *Street Fighter IV* or so). This move can also be performed midair, which has a few advanced uses, so try that out too. Once you can do the Hurricane Kick consistently on both sides, you're ready to move on to the Dragon Punch.

The Dragon Punch, or "Shoryuken," is often one of the hardest moves for a newbie to perform consistently. In order to execute a DP, you'll need to move the stick from toward, to down, to down-toward + punch; if you start with the stick in a neutral position, you can imagine it as kind of like drawing a "Z." Unlike quarter-circle motions or charging motions (Guile's Sonic Boom), the Dragon Punch requires a bit more wrist movement, which can make it a little bit more difficult in the beginning.

Some people don't have any problem doing Dragon Punches, while for other people it can take a long time to get the hang of consistently hitting them. Personally, I've found that the easiest way to start learning the movement is to just practice throwing a fireball while walking forward and pressing the punch button a little bit early, which tricks me into doing a Dragon Punch; since I was walking **forward**, then went to **down** and **down-toward** to start the fireball, the game will read that as a Dragon Punch.

If you can consistently do *that*, the trick lies in observing how your hands need to work to make that "Z" motion so you can do it from crouching, or neutral, or walking backwards. Basically, you're on the left-hand side of your opponent (also known as the 1P side, since that's where Player 1 starts), you'll need to push the stick right, then pull it back to down, and then push it to down-forward; if you're on the 2P side, you'll need to pull the stick to the left, push it down, and then pull it to down-toward. And you'll need to do that all really quickly, since they're probably jumping at you with an attack.

Once you can do a Dragon Punch consistently with your stick at a neutral position, try it while holding towards (it should be easier), then

try it while holding back, and then try it while holding down-back. In order to make full use of your Dragon Punch, you should be able to confidently execute it from each of these positions, since you won't be leaving your stick in neutral all that often — you'll be walking toward your opponent to attack them, or holding down-back to block, or other things.



Word alert: Reversal

You'll see the "Reversal" message pop up every now and then in fighting games. A "reversal" is a move performed on the first frame that you are allowed to perform a move; for example, if you get knocked down and immediately perform a Dragon Punch at the first frame after you get back up, you'll see the "Reversal" message. Consistently performing reversals is an important skill for preventing your opponent from getting too aggressive after they knock you down, though you don't want to always perform reversal DPs (or "wakeup DPs"), because if your opponent blocks them, they can punish you on the way down.



See the "Reversal Attack" notification? That means I threw this fireball at the earliest moment possible after recovering from an attack.

As a new player, you should definitely practice your reversal DP timing, though it's hard — in Super Turbo, you're only given one frame (1/60th of a second) to perform a true reversal — so if you can't get it 100% of the time, that's fine. Just make sure that you are working to develop a credible threat of a reversal DP, or else you'll be at a huge disadvantage when you get knocked down!

Spend some time with that Dragon Punch; being able to do them cleanly and consistently is one of the most important skills for a new fighting game player. You might even want to spend a few minutes during each training mode session just doing Dragon Punches over and over, from different positions, just to really drill that skill into your head. It's that important.

There's one last move you should know: Ryu's super fireball. Once you've filled up that meter in the corner (it should be flashing "SUPER"), you can perform a really powerful fireball by doing two fireball motions with the stick and pressing any punch at the end of the second fireball (quarter-circle forward x2, then punch). Not only is Ryu invincible for much of the move's startup (like a Dragon Punch), but it'll also eat up any fireballs it runs into and continue on to hit, so it's a pretty handy move. Using it will deplete your meter, so you'll have to build it all back up if you want to do it again. Try it out until you're comfortable doing this move from both sides; the double-quarter-circle-forward movement is used for super moves in many other games as well.

///WAX ON, WAX OFF

By now, you should have a reasonable command of Ryu's moveset. (If you don't feel comfortable with Ryu's moves yet, keep practicing until you do!) You now have the tools you need to win a game of *Street Fighter*. That's great! But before you can use any of those tools, you'll first need to master the Ancient Art of Not Losing, or "Blocking."

Blocking is a highly underrated skill in *Street Fighter*. It's not a sexy skill, and if you just get good at blocking, you'll still lose a game from chip damage and throws. (The Daigo Video never would have gone viral if he had blocked Justin's super instead of parrying it.) But if you don't have a solid core defensive skillset, you aren't going to get good at *Street Fighter*. Remember what Daniel-san learned first in *The Karate Kid*? "Wax on, wax off," was Mr. Miyagi's way of teaching him how to block. (MMA nerd note: *Before* Daniel begins to study Karate, he starts off a school-

yard fight with a double-leg takedown into a mounted ground-and-pound; if he had stuck to that, maybe impressionable American kids all over would have taken high school wrestling instead, and MMA would have blown up in the US like 15 years earlier.)

In most fighting games, you hold away from your opponent to block. Some moves hit “high,” meaning you have to block them while standing up (hold back), some moves hit “low,” meaning you have to block them while crouching (hold down-back), and some hit “middle,” meaning you can block them from standing or crouching. This may sound obvious, but you can’t block while you’re in the middle of performing a move or jumping (some games do allow you to block in the air, but the traditional *Street Fighter* games don’t).

As a new fighting game player, you should default to blocking low (hold down-back) whenever you’re blocking. This is because everyone in the game can perform a low attack pretty much immediately, just by walking up to you and performing a crouching kick attack, and if you default to a standing block, you won’t have enough time to react to a low attack. High-hitting attacks, meanwhile, are confined to jumping attacks and a very small set of standing attacks (also called “overheads”), like Ryu’s standing toward + MP.



Ryu’s sweep must be blocked low.



Ryu's toward + MP "overhead" punch must be blocked high.



"Middle" attacks, like Ryu's crouching MP, can be blocked low or high.

Low attacks can be performed almost immediately, while high attacks either require the attacker to jump (which takes a while) or have a built-in pause in them to give you time to react to them. So, in general, when you block a standing attack, you should default to blocking low, and react to the high attacks, rather than the reverse. When your opponent jumps in, block the first attack standing, and the rest crouching, since once they hit

the ground they'll be able to hit you low before you can react.

Now you know how to block! Easy, right? Well, there are two major factors that complicate things a bit: crossups and throws.

///UNDERSTANDING CROSSUPS

In the last chapter, you saw a perfect example of a crossup; Orange jumped over Blue, and on the way down, Orange made Blue block a heavy kick. What you may have missed in that exchange is that in order to block that kick, Blue needed to block in the other direction, because Orange's kick came in *while he was switching sides*. Had Blue simply held the stick in the away position, he would have gotten hit.

Remember that in order to perform a block, you need to hold "away" from your opponent. Well, "away" is a relative direction; if you're on the left-hand side of your opponent, "away" is left, and if you're on the right-hand side of your opponent, "away" is right. When an attacking player switches sides during the course of an attack, you have to block that attack in the other direction. That's a crossup.



Look at the crossup picture above. Blue *looks* like he held his joystick to the right in order to block Orange's kick, but he actually didn't – it just

looks that way due to Street Fighter's funky animation. See that red dot next to Blue's knee? That shows where Orange's character "center" is; since Orange jumped over Blue, his center switched from the left side to the right side, meaning Blue has to block that kick as though it was coming from the right side. It looks and feels a bit counterintuitive, but Blue had to hold his joystick to the left to block that.

Sometimes this looks really weird. Let's say Dhalsim is a full screen-length away from you on the 1P (left) side. He throws a slow fireball, then teleports right behind you, so he's now on the 2P side (right), and the fireball is about to hit you in the back. Common sense would say that in order to block the fireball coming at you from the left side, you'd move the stick to the right. However, in Street Fighter, *the only thing that matters is where your opponent is standing*. Since Dhalsim is standing on your right, you can only block that fireball by holding away from him (left). Tricky!

Note that not all jumping-over attacks will cross you up. All of Ryu's jumping-forward kicks will cross you up, but his punches generally won't. Whether your character's jump attacks will cross you up or not depends on the size and placement of their hitboxes (remember those?). The easiest way to find out what crossup attacks you have when you try out a new character is just to take them into training mode and play with them yourself; if you can jump over someone and hit them with an attack on the way down, congratulations, you have a crossup attack!

Advanced players will often have ambiguous crossup setups that make it hard to tell whether they'll cross you up or not, and even character-specific crossups, but you don't need to worry about those just yet. Just practice blocking crossups until you can consistently tell when a simple crossup is coming and block accordingly, or else every time you get knocked down you'll basically lose the game from all the crossup combo starters you'll be eating.

///THROWS AND YOU

We covered throws rather briefly while working through Ryu's moveset, but I didn't really explain why they're so important, so I'm going to walk you through a brief thought experiment: Imagine what *Street Fighter* would be like without throws.

You're ten years old again, and you step up to the *Street Fighter II: Championship Edition* arcade cabinet in your local 7-11. The guy you're playing against has a double-digit win streak going on, but you're pretty sure you can beat him, so you slip in your quarter and pick Ryu against his Guile. At the start of the round, he forces you to block a sonic boom, making you take just the smallest amount of chip damage, and then jumps back to the safety of the corner while holding down-back like his life depended on it. You throw a fireball, he cancels it out with a sonic boom. You try to jump at him, he hits you out of the air with a flash kick. You try to walk up and hit him with something — a crouching medium kick, a sweep, *anything* — but he just blocks it all. Finally, the timer counts down to zero. "Guile Wins," you hear, "PERFECT!"

See what happened here? Without throws, blocking becomes an almost-impervious shield against damage (except chip damage from the occasional blocked special move). Without throws, competitive players would be scared to attack at all for fear of getting hit by a single move and losing because the other player would just block for the remaining 98 seconds on the clock.

Street Fighter without throws would be kind of like Rock-Paper-Scissors without Rock. (We'll unpack that description in a bit more depth in the next chapter.) Once you add throws into the mix, however, your opponent has to worry about blocking your attacks and stopping your throw attempts. Get in your opponent's head, and they'll stop blocking because they think a throw is coming, so you can hit them, and then they'll block because they think an attack is coming, so you can throw them, and so on.

By now, you should already be used to using throws (you practiced that in the attacking part of this chapter, right?), so we're going to skip

straight to avoiding throw attempts. In *Street Fighter*, you can stop a throw in two different ways: You can attack your opponent before they successfully connect with the throw, or you can go for a throw of your own at the same time (or slightly later) than your opponent's throw.

Beating throws with an attack is simple enough; your opponent will need to get close to you to throw you, and the throw itself might have a certain startup time before it connects. If you can hit the opponent while they're walking towards you, or while the throw starts up, then you can beat their throw.



Attacks with a very short startup time, like a crouching light punch, are often very good for this purpose, as are moves with startup invincibility, like Dragon Punches. However, both of these are gambles; if you read the opponent wrong and he decides to go for a sweep instead of a throw, your crouching LP will lose, and if he blocks your Dragon Punch, you're in for a world of hurt when you land.

Instead, you can counter the throw with a throw of your own by going for a throw at the exact same time as your opponent. In *Super Turbo*, this is called "throw softening," because you still take a little bit of damage from the throw, but not as much damage as you would have

normally taken from it. In other fighting games, you'll just escape from the throw cleanly, and it's called a "tech throw."

At first, teching throws can be pretty tricky. (After all, if it were too easy, then no one would ever get thrown, and you'd be back in 7-11 against the Guile player.) Practice it for a bit in training mode with a friend, if you can! Just take turns going for a predictable throw setup, like following up two blocked crouching light punches with a throw, until both of you get the timing down.

Whatever you do, don't expect to tech every throw right off the bat. Really, when it comes down to it, teching throws is less about reacting to throw attempts and more about thinking, "Hey, right now would be a really good time to go for a throw!" If your opponent was thinking the same thing, you'll get a tech. If he wasn't thinking about throwing, maybe you just got yourself a free throw.

///REVIEWING BEGINNER EXECUTION

Phew! That was a pretty heavy chapter. By now, you should feel reasonably comfortable with Ryu's basic moveset, blocking, throwing, and teching throws. You should be able to perform Dragon Punches and fireballs consistently on both the 1P and 2P sides, and you should be able to block a string of high and low attacks without getting hit. If you read ahead through this chapter without stopping to do the drills, now is the time to sit down and spend some serious time in training mode. Hush, now — it's good for you. Spending some serious time on your fundamentals will save you years of misguided fighting-game-related heartbreak in the future. Trust me.

If you're feeling even the least bit shaky about your fundamentals, try getting into the habit of running through a few warmup drills whenever you play the game (ideally, once a day). I'd recommend doing this:

///Remind yourself what each of Ryu's buttons do by running through a quick check of his normal moves (crouching, standing, jumping up, and jumping backwards/forwards). Don't forget

toward + MP, toward + HP, and his three throws (up-close, press toward or away + MP, HP, or HK)

///Make sure you can do each of Ryu's special moves (fireball, Dragon Punch, hurricane kick) ten times in a row on both the 1P and 2P sides. Do not move on to the next drill until you have done this.

///Practice your crossup ranges by jumping at the training mode dummy with a crossup attack (jumping forward LK, MK, or HK, depending on the range). Remember which attacks cross up at different ranges.

///Practice blocking by going into the training mode menu and turning the Dummy Control on to CPU and just blocking everything the opponent does for five minutes. (Don't worry about getting thrown, though if you want to take the opportunity to practice teching throws too, that's great.)

///Practice teching throws by recording the training dummy performing a simple tick throw setup (crouching LP x2, then throw, for example). If you're playing Super Turbo/HD Remix, remember that you'll be "softening" the throw, so you'll take less damage than a full throw and you'll land on your feet, rather than escaping the throw completely. Alternately, you could also practice Dragon Punching your way out of the throw attempt.

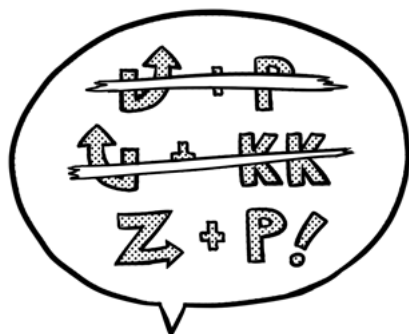
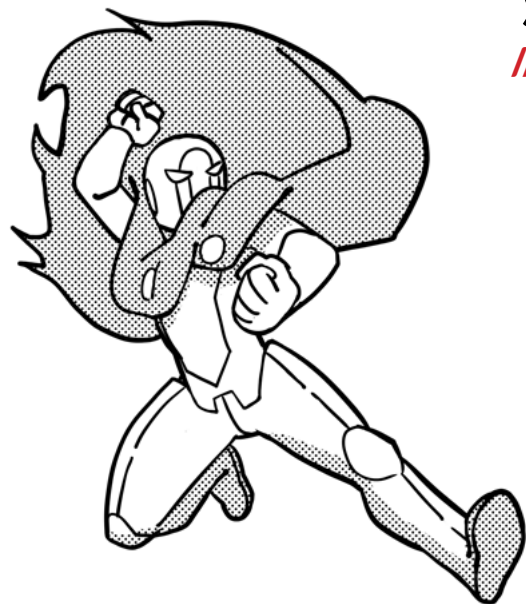
Since all that was kind of a lot of work, let's make your homework assignment for this chapter relatively fun: Find a buddy and play a few dozen sets of Ryu vs. Blanka with them. Switch off between Ryu vs. Blanka after each set or two.

Remember how at the beginning of the chapter, I mentioned that your results won't necessarily reflect your rate of improvement because

some characters have a steeper learning curve than others? Now is your time to find that out for yourself. I'm not going to explain Blanka's moveset in detail — I want you to figure out how you could use his tools for yourself, using some of the skills you've learned so far — but I will tell you this: He's pretty at closing the gap and getting in your face, and he can get away with being more aggressive at close range than Ryu can.

Play the Ryu vs. Blanka matchup for an hour or so, and see what it's like playing a matchup where one character's tools are much more accessible than the other's.

Chapter Three: Simplifying Street Fighter



If you've stuck it out this far, congratulations — you're well on your way down the *Street Fighter* rabbit hole. (Most people dip out once their eyes glaze over from the intro-to-game-theory bit in Chapter One, or throw their arcade stick out the window after trying to drill all the homework from Chapter Two.) As a reward for your dedication, we're going to work on developing a basic analytical tool that should make it a little bit easier to understand fighting games.

There are undoubtedly many games that influenced the developers who worked on *Street Fighter* and *Street Fighter II*. However, there is one game that is strewn all over *Street Fighter*'s DNA (and thus, pretty much the entire genre of fighting games). That game is Rock-Paper-Scissors.

RPS works like this: Two players simultaneously make one of three moves. Each move beats one move, loses to another move, and ties with itself. After one player wins a predetermined amount of games (typically two or three), the losing player is obligated to take out the trash, pick up pizza, or sit in the middle seat for a long car ride.

Street Fighter works like this: Two players can perform a variety of moves that fall into one of three types (attack, block, throw). Each move type beats one of the other types, loses to another type, and ties with the same type. After one player loses enough moves to deplete his health bar, she is obligated to put another quarter up on the arcade cabinet and go to the back of the line to wait her turn.

Basically, it's Rock-Paper-Scissors with no set turns.

So why bother with Rock-Paper-Scissors? Well, if you think about the 9-second sequence of moves we walked through in the Ryu vs. Ryu chapter, each of those interactions was essentially high-speed RPS; attacks beat throws, throws beat blocks, blocks beat attacks. Those nine seconds took a few thousand words to describe, which, in turn, probably took you a good while to read! There's no way you (or anyone else) could competently play fighting games if you had to memorize a list of Move-X-Beats-Move-Y interactions, or mentally perform on-the-spot evaluations of a single character's entire movelist's success or failure for every single millisecond of a match. Once you are able to think about fighting games as a complex branching chain of attack-block-throw interactions,

you'll be able to think and play much faster — which is when the real game starts.

///ATTACK, BLOCK, THROW

At the most basic level, attacks beat throws, throws beat blocks, and blocks beat attacks. *Street Fighter* takes this relationship and adds the elements of space and time to complicate things; a throw can beat an attack if it's the wrong attack (say, if you get thrown out of the startup frames of a standing heavy punch instead of a heavy Dragon Punch), and an attack *can* beat a block (if that attack inflicts chip damage, or leaves the attacker with a frame advantage on block, for example).

But by and large, it's a good way to start thinking about the game because at the most basic level, you should know that the game is *not hopeless*; for any of your opponent's given moves, you should have a chance to counter or at least nullify that move with one of your own, and the first place to look is often the Attack-Block-Throw dynamic.

The easiest starting place to apply this mindset is when you're on the defensive. Think about when you're getting up from a knockdown — maybe you got swept. While you're lying on the ground, you can't be hit, but at that first active frame (the “Reversal” frame), you have three choices: Attack, Block, or Throw. (For the purposes of this example, let's assume you're playing Ryu.)

Obviously, Ryu has a whole bunch of different “Attack” options. However, the Reversal frame is your first option to *start* a move, not the first frame your move will be *active*. If you want to perform a reversal crouching medium kick, you could, but the kick itself wouldn't be active until four frames later. Your opponent, meanwhile, has no such restriction, because she wasn't the one knocked down. Since she's still on her feet, she can make you stand up *into* an active hitbox by starting his crouching medium kick four frames early, while your reversal c.mk would still be in startup — which means you'd get hit. (In *Street Fighter* terms, your opponent would have performed a “meaty” crouching medi-

um kick — I'll explain this next.) Your best option for a reversal attack is one that has some kind of startup invincibility, like Ryu's Dragon Punch.

///WHAT'S A MEATY ATTACK?

A “meaty” attack refers to one that is in its active frames right when you come out from an invincible state (usually when you're getting back up from a knockdown, for example). If I knock you down, then throw a fireball that is spaced and timed in a way that means it will hit you immediately when you stand up, it's called a “meaty” fireball.



First, orange Ryu knocks blue Ryu down with a sweep.



Next, orange Ryu times a fireball so that it's hovering over blue Ryu while he's still getting up.



Now blue Ryu still has to recover from blocking orange Ryu's fireball, and orange Ryu is free to move as he pleases.

Players often use meaty attacks as a way of pressuring knocked-down opponents, usually in order to gain significant frame advantages on moves that would not otherwise have them. Remember that any given move has three animation phases: startup, active, and recovery, and upon contacting an opponent, it will put them in hitstun or blockstun for a certain length of time.

If you time the attack so that it hits in a later active frame instead of an earlier active frame, you'll still put your opponent in the same amount of hitstun or blockstun (because this number is a fixed property of the move), but you'll recover earlier than you would if you had hit on the earlier active frame, because you were already further along in the attack animation and so you have to wait less time for your character to recover from doing the move.

For example, let's take a hypothetical move that has three frames of startup, three frames active, and three frames of recovery, and causes six frames of hitstun or blockstun upon contact with the opponent. Normally, if you connect with this move on the first active frame, you'd have a frame advantage of one frame, because you cause six frames of hitstun/blockstun, but you have to wait five frames (two active frames and three recovery frames) before you can act again.

If you time the move so it hits on the third active frame instead of the first (by starting the move when your opponent is knocked down and timing it so they stand up into the third active frame), you can

increase your frame advantage to three, because your move still causes six frames of hitstun/blockstun, but you don't have to wait for those two extra active frames (since your character performed them before the opponent stood up into your attack). That gives you two extra frames to start yet another attack, or step forward to throw, or bait a Dragon Punch, or whatever you like.

So you can either choose to Dragon Punch, block, or throw, and your opponent's options are roughly parallel; she can block the Dragon Punch and punish you, throw your block attempt, or attack your throw attempt. Since you were knocked down, you're playing Attack-Block-Throw at a bit of a disadvantage; the standing player can use the time you're getting back up to whiff a quick attack to bait you into a Dragon Punch, for example, or move around to obscure her distance from you.

When you see that, you might be enticed into going for a throw, only to discover that at the moment of the reversal frame, she was standing too far for you to successfully land a throw. (Think about playing Rock-Paper-Scissors where one player has a split second to react to another player's move, and you get the idea.) At the most basic level, however, you know that if you get knocked down and then thrown, you should have Dragon Punched (to win) or thrown (to stay even); if your opponent is blocking your Dragon Punch and then knocking you back down, you should have thrown (to win) or blocked (to stay even); and so on.

Get knocked down once, and you have a game of Attack-Block-Throw. Get knocked down five times, however, and you'll see that both players will begin to establish a pattern. You may find that some players will block those first five times; throw them. Others will attack those first five times; block them. Sneaky players will block the first five times, then attack the sixth. Sneakier players will block the first six times, then attack the seventh. That, my friend, is *a fighting game*.

Up until now, we've treated Attack-Block-Throw as more or less a game of guesswork, because in one isolated round, it is. Over the course of a three-round match, however, it is less guesswork and more "reading" your opponent *a la* Poker (You may have heard fighting game players refer to this phenomenon as "Yomi"; that's Japanese for "read-

ing”). Like Rock-Paper-Scissors, *Street Fighter* is a game that rewards your ability to predict your opponent’s next move, since every move has a counter. If you can read your opponent’s next move, you can counter it, and win that exchange.

Maybe you’ve sized your opponent up and found he or she is prone to Dragon Punch often, or throw often; maybe you’ve determined that he likes to Dragon Punch when he is above 50% health, and blocks a lot more afterwards; if you can use that information to know when to throw, when to attack, and when to block, you will win. How you decide to profile your opponent is up to you; what’s important is that you are paying attention to what *he’s* doing, and that you’re paying attention to your opponent paying attention to what *you’re* doing.



Word Alert: Yomi

The best way to describe “Yomi” is by describing a process that starts when you’re predicting your opponent’s next move and acting with the counter in mind — you could also think of it as “thinking one move ahead,” as in Chess. How you make this prediction — in other words, how you read your opponent — is up to you, and it will no doubt become an integral part of your ability as a fighting game player, as you decide how you want to read your opponent’s reputation for aggressive or defensive play (“Is he a rushdown specialist?”), mindset (“Is he shaken up or ‘on tilt’ at all?”), play circumstances (“Is he winning or losing? Is he the type of player to change his playstyle depending on whether he’s winning or losing?”), and so on.

So you move to throw, because you expected him to block, and you’re surprised when he attacks you out of the throw. In other words, he countered your counter — and now you’re stuck there asking yourself if that was dumb luck, or if he accurately read that you were going to throw because you thought he was going to block, and performed the appropriate move (attack). This exchange — thinking “He knows that I know that he knows I’m going to throw” is a skill, and we call it “Yomi.”

No one will expect you to start reading your opponent's mind at this stage in your fighting game career, of course; I don't want you to start doing a million "psychic Dragon Punches" after reading this chapter, because for every one that hits you'll probably be punished for ten others that didn't. What you should take away from this Attack-Block-Throw / Yomi discussion is this: The difference between a player that just mashes buttons non-stop, and a player that is seeking to improve at fighting games, is that the latter recognizes that the game is, in fact, a game — one with "right" and "wrong" moves — and the other simply refuses to try to understand what's going on. By wrapping your brain around analytical tools like "Yomi" and "Attack-Block-Throw," you'll be able to see the way the game works as it's playing out in front of you.

///BUILDING MIXUPS WITH ATTACK-BLOCK-THROW

So far, I've been describing the game of Attack-Block-Throw on the defensive side of things (your options after you've been knocked down), but it's not solely a defensive concept. In this next section, we're going to use it as a tool to help you develop your very own mixups.

Remember that earlier in this chapter, I described *Street Fighter* as like Rock-Paper-Scissors, but with the addition of time as a major design element. That is to say, one round of Rock-Paper-Scissors occurs in a predetermined instant (the moment that both players reveal their move). Attack-Block-Throw, however, is initiated by one player (the attacker), and responded to by the second player (the defender), which adds an interesting wrinkle — the defender must know both *what* to do and *when* to do it.

If we were to translate that back into Rock-Paper-Scissors, it would be kind of like walking up to someone and just throwing out a Paper, and if they didn't respond with Scissors in a fraction of the second, they'd have to do the dishes or take out the trash. On one hand, the defender has an advantage, insofar as they have time to react to the attack with the proper response, but the attacker gets to dictate when and how often each round of Rock-Paper-Scissors happens, and if the defender

doesn't respond in time, she will usually end up on the losing side of things. So it is with Attack-Block-Throw and *Street Fighter*.

Let's return to the Ryu vs. Ryu example, except this time you're the attacker. You sweep your opponent, and then jump over them with a crossup medium kick, land, and then make him block two crouching light punches and a crouching medium kick, which you cancel into a fireball. Your opponent successfully blocks all of the attacks, meaning she only takes chip damage from the fireball, which isn't much damage. This exchange might sound rather unremarkable, but for the defending player, getting out of it with just a little chip damage is practically a miracle. Here's why.

In order to successfully defend all those attacks, your opponent had to block the crossup jumping medium kick, and then the two jabs, the crouching medium kick, and the fireball. The controller inputs required to do that are pretty simple; hold back to block the crossup medium kick high, and everything else can be blocked back except for the low medium kick, which must be blocked down-back because it hits low. All Player 2 had to do was hold back, and then down-back for the duration of those five attacks. Easy, right? Well, it's not so easy if you think about all the moves that you didn't do.

If you break your sequence down to Attack-Block-Throw terms, all you did was perform Attack five moves in a row, and the answer to that was just "block high, block low x 4." It looks kind of like this:

You: Crossup jumping medium kick (attack-high), crouching light punch (attack), crouching light punch (attack), crouching medium kick (attack-low), fireball (attack)

Him: Block (high), block, block, block (low), block.

Now imagine you're playing Rock-Paper-Scissors with your opponent; would you ever go Rock five times in a row? Probably not (and if you would, you probably know way more about competitive games and Yomi to bother reading this book)! So don't do it in *Street Fighter*, either. If you're letting your opponent get away with such an easy time blocking your attacks, you're really just going easy on her. You want your opponent to be afraid every time they block an attack; make them think it is

just as much of a gamble as going for a Dragon Punch or a throw.

Once you force your opponent to block that jumping medium kick, you could wait a split second, and then throw. Or you could make her block a crouching light punch, wait a split second, and then throw. Or you could make her block two crouching light punches, take a step forward, and throw. Those first three blocks shouldn't be free — your opponent should be sweating bullets, expecting a throw to come. After the second blocked crouching light punch, she should be thinking, "Here it comes! You're going to go for a throw now, so I'm going to try and throw you first!"

Of course, you're so smart that you *didn't* throw her after that second crouching light punch. Instead, you used your crouching medium kick, which hits her right in the middle of his failed throw attempt, and combo it into a fireball for some extra bonus damage and a frame advantage that you can use to walk close and make your opponent block another crouching light punch.

See the difference? The first example was just a simple blocked combo; the second was a mixup. The inputs were the same in both examples, but how the defender thought of the inputs was different. In the second example, you forced the defender to think "What's coming next? Are you going to attack, block, or throw?" *five times in about two seconds*. And that last bit with the crouching medium kick — that's yomi! You're putting together a setup that anticipates your opponent's reaction (throw) and punishes it (attack).

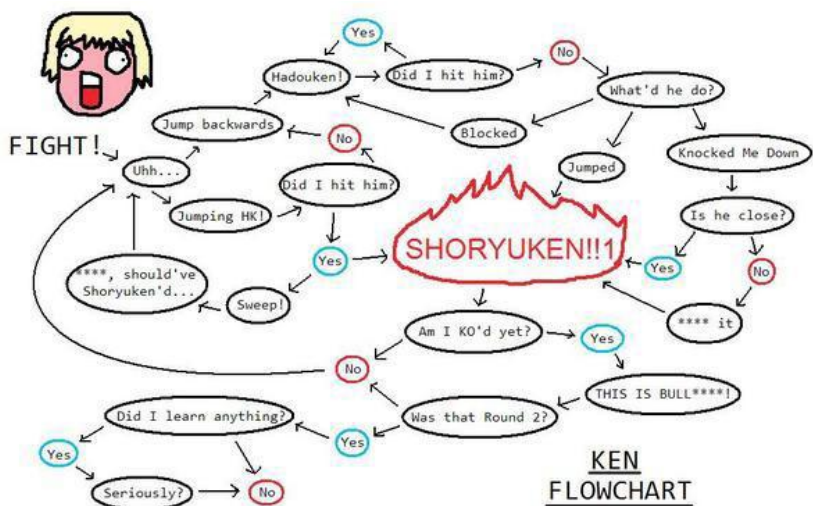
Of course, that sample mixup is just a template that you can fill in with practically infinite variety. You could cross up with a different jumping kick, which would change the timing of your next move, since each kick causes a different amount of blockstun, which means that the time you take to land from the kick and throw changes as well (if you're in blockstun, you can't be thrown) — so your opponent might expect you to throw three or four frames *later* than you actually throw them. Your mixups are a combination of **what** you're doing (Attack-Block-Throw) and when you're doing it.

///BLOCKING AGGRESSIVELY (OR, HOW TO DEAL WITH “FLOWCHART KEN”)

Now that you know how to put together a basic mixup, it's easy to go wild and put together a few crazy nonstop sequences of attacks and throws — but remember, you don't want to forget about blocking! Paradoxically, blocking can be one of the most potent elements in your mixup game, and I'm going to explain how with a little story I like to call “The Story of Flowchart Ken.”

“Flowchart Ken” was the name of a phenomenon that arose shortly after *Street Fighter IV* came out. Ken is a popular character among *Street Fighter* newbies because he's like Ryu, but a bit different — his moves tend to be a bit flashier, and hit more often, and he's a brash American with brash American alternate outfits (a cowboy getup and a karate outfit with a pair of Reebok Classics or something).

For the first few months, it seemed like hundreds of people would pick Ken and never do anything but repeated Dragon Punches at somewhat unpredictable intervals, and it worked pretty well against players who were still in the process of trying to develop their understanding of the game (basically, players like you). Eventually, one Internet jokester constructed an elaborate flowchart representing their thought process (amid dozens of scenarios and Yes/No forks, each option invariably led back to “SHORYUKEN!”), and thus these players were forever named “Flowchart Ken” players.



Why did “Flowchart Ken” work? Well, if you think about Attack-Block-Throw, it’ll start to make sense. First off, the Dragon Punch is invincible on startup, meaning it beats just about anything it runs into short of a move that has *more* startup invincibility (a Super or Ultra, usually) — and Ken in particular has a set of Dragon Punches that are more invincible and recover faster than anyone else’s. So if you attack Ken while he’s in the active frames of a Dragon Punch, you’re most likely going to lose (because it’s invincible), and if you try and throw Ken, you’re probably going to get Dragon Punched (because attacks beat throws). Even though you can predict what a Flowchart Ken is going to do with approximately 95% accuracy (sometimes they like to throw, sweep, or randomly hurricane kick, albeit very rarely), two of your options, Attack and Throw, are out.

Well, that leaves you with one option: Block. (Specifically, block the Dragon Punch and then punish it on the way down.) All the folks who were losing to Flowchart Kens were the folks who had grasped onto how important it is in *Street Fighter* to attack and throw, but hadn’t quite

figured out that blocking is just as important as an aggressive technique. (And well, to be fair, figuring out block-and-punish timing with Ken's light Dragon Punch when you're dealing with variable amounts of Internet lag can be kind of a pain in the butt, which didn't help matters any.)

Usually, all you had to do was block a Flowchart Ken's Dragon Punch, punish him with a combo that knocked them down, block Flowchart Ken's wakeup Dragon Punch, punish him with another knockdown combo, block Flowchart Ken's wakeup Ultra Dragon Punch, punish him with one last combo, and then do the same in the next round.

So what lesson should you take from the Story of Flowchart Ken (besides "Don't just Dragon Punch," that is)? **Don't forget to block.** In other words, don't relentlessly *attack throw attack attack throw attack throw*. If you revisit the setup we worked on in the previous segment, remember that a properly timed Dragon Punch can stuff every single attack or throw in that setup, so make sure to exercise caution and insert block pauses in your setups every now and then. Attacking is fun, pressing buttons is fun, but only doing Dragon Punches isn't going to be fun when you see how much you end up losing.

Even though your block-pauses don't directly do damage to your opponent, their presence can be completely devastating in the mental game. Think about it: After that crossup j.MK, your opponent knows that he's on the defensive, and he needs to focus every ounce of his attention on finding the right times to attack, block, or throw. Pause for *just* the right length, and he'll be bracing himself for the next attack or throw to come at him — the one that comes now — oops, wait, you didn't do anything, it's now — nope, nothing, it's gotta come *now* — SHORYUKEN!

Except that you didn't do anything. You were just waiting there for a split-second, but that felt like an eternity to him — an eternity of dodging punches and teching throws that never came. (It's kind of like that one mental duel scene in that Jet Li movie, *Hero*.) And as his Dragon Punch sails up in the air, delivering you a perfect opportunity to punish with an attack of your choice, he sits there and realizes that anyone watching would have just seen you crouch-blocking from a reasonable

distance away while he Dragon Punched the air. (Much like what happened at the end of Phase 2 in the example sequence of Chapter 1.) This is one example of “baiting an attack,” and once you do it to an opponent, you will likely crush his spirit. He’ll be too broken to ever Dragon Punch again, and you can attack and throw as you see fit. (Or he won’t be broken, and you can just keep on blocking and punishing.)

Now, this doesn’t mean your block pause should be *too* long; after all, eventually your opponent will just walk up and throw you (unless you have him so seriously mind-blown that he’s just cowering and holding the stick down-back forever). Think of it as giving your opponent the opportunity to do something stupid and take an active hand in losing the match — winning is hard work, and you shouldn’t be responsible for doing it all on your own.

///ADVANTAGES TO ATTACKING AND DEFENDING

Now that you’ve got a functional understanding of Attack-Block-Throw, Yomi, and mixups, it’s time to take a step back and look at the Big Picture of fighting game design: the advantages and disadvantages of attacking and defending.

If you’ve ever watched a boxing or MMA bout before, you know that you typically don’t see both fighters just advance towards the middle of the ring and brawl; instead, one fighter will move towards the other fighter, and the other fighter will gradually circle back. The fighter that is backpedaling could be doing so as part of his gameplan (perhaps he’s a counter-puncher that specializes in landing knockout shots as the opponent comes closer), or she might be doing so in order to avoid damage — maybe she started circling away from his opponent in order to dodge a particularly nasty-looking combo.

As it turns out, fighting games are very similar; the round starts with both players in the “neutral game,” where they’re jockeying for opportunities to get into the range they want to be in and look for a chance to get momentum (by landing a well-timed sweep and starting

the mixups, for example). Once a player gets that chance, he can choose to be aggressive and get in close (known in the fighting game community as “rushdown” or “rushing down”), or he can choose to back off and keep his space, forcing the opponent to come to him. In other words, he can choose to attack or defend. As in boxing and MMA, both attacking and defending are viable strategies for success.

For fighting games, the difference between being the aggressor — the one walking forward and bringing the fight to the other person — and being the defender is that the former determines when and how to initiate the Attack-Block-Throw exchange, and the latter is the one that must respond with the correct answer while the window is still open. The attacker’s advantage is that she can dictate when and how these exchanges happen as she moves in; the defender’s advantage is that he has the time to see what the attacker is doing, and react to it with the proper counter or defense — even if that time is limited only to a few frames of startup. If your opponent jumps at you with a kick, she’s basically saying, “Here! Look, I’m going to attack you, and if you don’t block or hit me with an anti-air before my jumping attack hits you, you’re in trouble!”

Most fighting game characters tend to be designed to do one or the other really well, but your ideal role will often depend on the specific character matchup. For example, Ryu in Super Turbo is pretty good at both attacking and defending; one moment he’ll be keeping you outside with fireballs and Dragon Punches, and the next moment he’ll be in your face with tick throws, excellent footsies, crossups, and other mixup tools. When Ryu goes up against Guile, Guile typically has to go attack Ryu, because Ryu’s fireball recovers so quickly that he can basically throw nonstop fireballs from the other side of the screen, and Guile can’t keep up with his Sonic Booms without being forced to take chip damage or jump. But when Ryu goes up against Old Sagat, he can’t win the fireball game because O. Sagat’s are even faster, so Ryu has to be the one to attack.

As a developing player, you should learn how to win games from both an offensive and defensive position (which is, again, why Ryu is such a great character to learn how to play fighting games with — he

can do both). Eventually, you may find that you tend to gravitate to one playstyle over another, or to different playstyles in different games, or in different matchups, or different moments in the matchup; you'll learn when you want to take up space and suffocate your opponent, and when you want to give your opponent space to make mistakes that you can punish.

Once you're confident in your offensive tools (like your mixups) and your defensive tools (your yomi skills and reaction speed), you may find that you like to start out defensive to feel your opponent out, and turn up the heat once you have a good read on their personal style. Or maybe you'll have more success attacking big early on to put up a health lead and then pull back and force your opponent to come to you at a disadvantage. It's up to you!

///HOMEWORK: DIY MIXUPS!

Phew, that was another heavy chapter! Once you've fully digested everything in this chapter, you should be able to look at any given move and plug it into the Attack-Block-Throw mindset in order to figure out how to defend against it.

When you're attacking, you should be using this knowledge to design mixups that keep your opponent blocking so you can throw her, throwing so you can attack her, and attacking so you can block her (and then punish her). Yes, this last one is possible — you can make a situation so enticing that your opponent can't help but attack.

When you're defending, you should be able to look at a series of your opponent's moves to determine what the proper responses are, and when — in other words, finding the points within an opponent's mixup where you can beat her by attacking, blocking, or throwing. Basically, you should be able to play *Street Fighter* at a somewhat literate level by now! Exciting, isn't it?

Your homework for this chapter is going to be fun, this time: Your job is to design your own mixup! String together a series of attacks,

blocks, throws, and movements (walking or jumping, for example) designed to penetrate even the most solid defense. First, I want you to design a mixup that forces the opponent to attack, block, *and* throw at different times in order to survive the mixup without taking serious damage.

Once you've done that, I want you to take it one step further and build a variation of that mixup designed for someone who has gotten hit by your first mixup, sees the trick, and is planning to counter it. This variation should plan for your opponent's intention to counter your first mixup, and counter their counter. It's yomi practice!

Once you've designed and practiced at least one mixup and one counter-mixup, take them to a friend and practice it live. See how it works, fine-tune it to work better, and practice it until your friend can defend against it reasonably successfully. Then switch places and have your friend do the mixup to you, so you can practice defending against it. Have fun!

Chapter Four: Intro to Combos



Like Daniel-san in *The Karate Kid*, you've put in the somewhat-less-fun work to get this far. Basic execution drills and a heavy dose of general game design theory are arguably more fun and interesting than waxing Mr. Miyagi's classic car collection or finishing his new deck, but when you think about kicking back and relaxing with a video game, you probably didn't imagine spending an hour or two in training mode doing Dragon Punches. Well, in this chapter, we're going to walk through one of the hallmarks of any modern fighting game: Combos!

So far, we haven't talked about combos a whole lot because they're not essential to understanding the way fighting games work in the very beginning. In fact, one of the neat things about *Super Turbo* is that you can get a pretty decent game without knowing much in the way of combos besides simple stuff, like three-hit combos. With most newer fighting games, though, combos are critical; having a consistently easy-to-perform combo (often called a "bread-and-butter combo", or "BnB") means you can win a round by forcing your opponent to make two or three mistakes instead of eight or nine.

In this chapter, we're going to introduce you to the idea of a combo, teach you about the different types of combos and combo methods, and give you a few tips for figuring out which combos you should be practicing and how to practice them most effectively.

///WHAT IS A COMBO?

At the most basic level, a combo is a string of hits that cannot be blocked if the first hit connects: The hitstun caused by the first hit gives you enough time to hit with a second hit, which gives you enough time to hit with a third, and so on. The classic combo everyone did in vanilla *Street Fighter II: The World Warrior* was jump toward hard kick, crouch hard kick — the jump attack would put your opponent in hitstun, and landing from the jump would end the recovery of your jumping kick early so you had time to sweep him before she was out of hitstun. Bam, that's a two-hit combo.

By putting together a string of moves that combo into each other, you can turn your opponent's mistakes into opportunities to take away 30-40% of their health meter, or more. You also get the chance to re-evaluate your arsenal of moves; if you have really good moves that are unsafe when blocked but can cancel into something else that is safe, then just make sure to use them together. For any given character, a single move will have some strengths and weaknesses, ideal use cases and not-so-ideal use cases, and so on; learning *how* those moves can connect into combinations that mask those weaknesses and create entirely new possibilities adds an entirely new layer of complexity to each character in a fighting game.

Naturally, different games and different characters emphasize combos to different degrees; if you are adamantly opposed to learning combos longer than 3-4 moves, you can still do okay in *Super Turbo* but maybe *Marvel vs. Capcom* isn't quite your thing. Some people love practicing combos, some hate them, some learn to like them in time. I'm not the biggest fan of spending hours practicing combos, but it does feel nice to finally master something that's been giving me trouble, and every now and then I take a step back and marvel at how I've been able to teach myself to perform successions of complicated movements. It's kind of like programming a robot.



In *Marvel vs. Capcom 2*, Cable barely has to break a sweat to hit a 100+ hit combo.

On the other hand, there are plenty of players out there who are addicted to learning new combos for the opposite reason: Unlike theoretical, hard-to-practice concepts like “footsies” or “neutral game,” combos are an immediately obvious way to improve your game. Spend an hour learning a more damaging set of combos, and your character is objectively more powerful than he was before that hour. For people who thrive on having obvious benchmarks for progress, mastering newer, more difficult combos can be like having a constant drip of self-improvement to get you through times where you can’t find someone to play with.

For some, this can even be a crutch — there are plenty of players who spend years practicing combos far too flashy and specific to have any remotely realistic applications in competitive play (“If you’re standing right here, *and* you’re Player 2, *and* you’re Zangief, *and* you have 50% life...”) when they should really be spending that time playing with other people. There are even players who *only* enjoy the process of making new combos that shatter damage limits, break game engine rules, and other fun stuff that they’ll show off in a YouTube combo video; for them, it’s more about testing (and breaking) the limits of what the game lets you do.

I have a confession to make: I am Bad At Combos. I’ve never been a terrific execution-player, and I usually pick characters that make the execution part easier for me. If left to my own devices, I’d rather play “smarter” instead of practicing harder. (In other words, I’m lazy.) But I’ve personally found the Training Mode medicine doesn’t taste so bad once you’re used to it — and it has opened up new avenues for enjoying the games than were previously available to me. My game gets stronger, and I learn to enjoy execution for its own sake. Once you get in the zone, there’s something kind of meditative about sitting in front of your TV with your arcade stick and focusing only on perfecting a single combo.

As I said while discussing execution in the introduction to this book: There is no substitute for hard work. The easiest thing to do is look up

your game and character online, find a list of combos, and practice them until you can do them. In doing so, you'll learn a lot about your physical habits, build your understanding of the game, and learn more than just how to do the combos you set out to do.

You'll learn how different moves connect in different ways, and how to look for new opportunities to land moves in the neutral game. You'll learn combos that work very well for specific situations and matchups, which will teach you more about how to play your character. All of it is great — and really, it's an integral part of the beauty of fighting games — but it is also work. If you want to get good, or even just literate, at this kind of thing, you'll have to spend some time practicing.

///LINKS, CANCELS, CHAINS

Earlier, we defined a combo as a string of attacks that, if the first hit is not blocked, none of the other subsequent attacks can be blocked either, because the first move puts the opponent in enough hitstun to connect the second move, which puts the opponent in enough hitstun to connect the third move, and so on until the last move in the combo. Fighting games offer you a few different methods of stringing one hit to another: links, cancels, and chains.

Links are simple to understand but hard to execute; you do one move, and when that move is over, you immediately do another move. Recall that every move consists of three phases: Startup (pre-hit), active (hitting), and recovery (post-hit). When you link one move into another, you're simply connecting two moves together mathematically; move A causes X frames of hitstun when it hits, and X frames is enough for you to perform move B immediately after move A's recovery phase ends, wait for move B's startup phase to finish, and hit with move B's active phase.

For example, in Super Turbo, Ryu can hit the opponent with a point-blank crouching medium punch, and when he's done doing the crouching medium punch, he can combo that into another crouching

mp. (If you thought, “Wait, doesn’t that mean I could just combo c.mp into itself over and over until I win?” you get a cookie — but no, it doesn’t work, since you will push the enemy out of range after the second c.mp so you can’t hit with a third). As far as combo methods go, links tend to be rather tricky for new players to pull off, since it often requires timing your button presses down to fractions of a second, but once you master your character’s links you’ll find that your arsenal of normal moves and overall damage output can be much more dangerous.

Cancels (or to old-school players, “two-in-ones”) work by prematurely ending one move’s animation after it hits, so you get the full hitstun but don’t have to wait for the remainder of the active phase and recovery phase, which gives you enough time to start up a move. Ryu’s crouching medium kick into fireball is a perfect example: When you hit with Ryu’s crouching medium kick, you don’t have to wait for the animation to finish before doing something else, because one of its properties is that you can **cancel** the recovery phase of the move into another move by performing the command for that other move before the kick animation is finished. In-game, it looks like Ryu skips from his crouching medium kick to the windup for whatever the next move is (a fireball, usually).

Not all normal moves can be canceled, and in general, you’ll be canceling normal moves into special moves (or super moves), not other normal moves. So you can press crouching medium kick, then immediately perform a fireball, Dragon Punch, or hurricane kick to combo. Of these three moves, the fireball is the easiest and safest option, although it doesn’t do as much damage as the other two or knock your opponent down.

Chains are a special type of cancel that let you connect a string of normal moves together, though they’re not available to all characters or implemented in all games. Basically, chains let you easily combo a string of normal moves by letting you cancel one normal move into another at almost any point in the move — for example, Guy in *Street Fighter IV* can combo standing LP, standing LK, standing MP, standing HP into each other just by pressing those four buttons in order without having to

worry about timing the startup or recovery of each move if the combo was a link. However, this combo works because the game is specifically designed to let him do that — no one else in *Street Fighter IV* has the same chain. In general, chains aren't particularly common in Super Turbo, though many characters can do an easy c.LP, c.LK, c.LP chain.

Other examples include Ken's close standing MP, standing HP combo and Yun's close standing MP, standing HP, standing back + HP in *Street Fighter III: Third Strike*. When a chain combo works only in one specific configuration for a specific character, as in the Guy/Ken/Yun examples, it's also often referred to as a "target combo."

Chain combo systems are often used heavily in flashier games, like Capcom's movie-monster fighting game *Darkstalkers* and the *Marvel vs. Capcom* series; in these games, pretty much any character can chain combo a series of normal moves into each other as long as the chain moves from lighter moves to heavier moves, regardless of whether a move is a punch or kick, or whether the move is performed standing or crouching (or even in the air!).

In *Marvel vs. Capcom 3*, for example, each characters' normal moves are just referred to as "Light," "Medium," "Heavy," and "Special," and pretty much any character can chain a standing or crouching light, medium, heavy, and special together. The "special" is usually a launcher that knocks the opponent into the air so you can continue the combo further, by jumping up after them and following up with another light, medium, heavy, and special, which knocks the opponent back to the ground.

///READING COMBO NOTATION

Now that you know how different combo methods work, we're going to teach you how to read combo notation — a simple and useful typed shorthand that will allow you to scour the Internet for whatever combo you'd like to learn (and make it easier for me to write combos in this book). There are a few different ways of writing combos out, and they often vary depending on a player's background (different segments of

the fighting game community prefer different terminology), but for the purposes of this chapter, we're going to stick to standard *Street Fighter* combo notation.

First, let's review our button notation: Given a standard six-button *Street Fighter* control setup, your basic attacks are going to be abbreviated as LP / MP/ HP (light, medium, and heavy punch) and LK / MK / HK (ditto for kicks). Occasionally, you'll see people refer to the classic *Street Fighter* button strengths: Jab, Strong, and Fierce for punches, and Short, Forward, and Roundhouse for kicks, so if you see people abbreviate some moves as "FP" and "RH" for "fierce punch" and "roundhouse," know that they're referring to "HP" and "HK." Special moves are typically referred to by name ("Fireball"), though you'll have people who prefer to describe the actual joystick input (qcf, qcb, dp — short for "quarter-circle forward," "quarter-circle backward," and "Dragon Punch").



This is where it all started.

Standing moves are preceded with an "s," and crouching moves with a "c" or "cr." Many games have different standing movesets based on how close you're standing to your opponent; if you're specifically referring to a close standing heavy punch, you'd swap the "s" for a "cl." Jumping attacks are preceded by a "j." If a move requires you to move the stick in a certain direction (for example, Ryu's dashing fierce punch is toward

and punch), you can specify the direction by typing “F + HP” (or “forward + HP,” but “forward” can be confused with the traditional name for “medium kick,” which is also “forward”) and “B + HP” for “backward + HP”.

Finally, a link between two moves is denoted by a comma, and a cancel is denoted by an “xx.” Chains are often mashed up together with nothing in-between (“LMHS” for a basic *Marvel vs. Capcom 3* chain, for example), or even an ASCII arrow (“L -> M -> H -> S”). Some people will use commas as well, because for games/characters with chains, it’s implied that almost every normal-to-normal combo is a chain of some sort, and if a particular segment requires link-esque timing, the notator will mention it.

So Ryu’s basic combo in Super Turbo would be written as “j.MK, c.MK xx HP fireball,” or “j.MK, c.MK xx qcf + HP.” One of his more damaging combos is “crossup j.HK, cl.HP xx qcb + HK.” One of Guile’s classic combos is “j.HP, c.HP, sonic boom (charge back, then forward + punch), F + HP.”

///BREAD AND BUTTER COMBOS

Now you can read combos, the world is your oyster! You can learn how to do any combo you want. But where to start? Well, one thing you should know for every character you play with is a “bread and butter” combo (“BnB” or “B&B” for short); a go-to combo that you can perform reliably without thinking. After all, when your opponent leaves you with an opportunity for a nice, juicy combo starter, you don’t want to miss that window of opportunity thinking of all the combos you could be doing then. That’s what a BnB is for — it’s a combo that lets you turn your brain off for a second.

In general, a good bread and butter combo can be performed anywhere on screen, does a good amount of damage, is easy to execute without messing up, and doesn’t leave you open to punishment if blocked. In Super Turbo, Ryu’s c.MK xx fireball is his bread and butter combo; it does decent damage, is hard to mess up and safe on block, and

doesn't require the opponent to be standing anywhere in particular as long as the c.MK hits. Also, it starts out with a low-hitting attack, so he's more likely to land it than he would if the combo started with, say, a mid-hitting c.MP instead.

Now, Ryu *could* combo c.MK into a Hurricane Kick for more damage and a knockdown, but the Hurricane Kick doesn't hit crouching opponents, so if Ryu went for a c.MK xx Hurricane Kick against someone while they were crouching, he'd miss the second move and actually be open for the opponent to punish him. Or he could combo c.MK into a Dragon Punch, but that doesn't successfully combo at all ranges and isn't safe if blocked — so unless you know that they won't block it and you're at the right range, you're best off settling for a low-risk option like c.MK xx fireball.

	DAMAGE	CONSISTENT?	SAFE IF BLOCKED?
c.MK xx Dragon Punch	High	Misses if too far away	Very unsafe
c.MK xx Hurricane Kick	Medium	Misses if opponent crouching	Slightly unsafe
c.MK xx Fireball	Low	Always hits	Very safe

To a certain extent, whether a combo is a good bread and butter or not depends on you; there are players out there that can consistently perform very demanding links (links which often require timing button inputs for a single animation frame, or 1/60th of a second — also called “one-frame links”), so they can eke a little extra damage out of their BnBs by throwing a few fancy links in there.

In general, though, most players for any given character tend to settle on one or two ideal BnBs that almost everyone uses, so if you're looking to learn a new character, the first thing you should do is look up tutorial videos or match videos on YouTube and see which combos people are *always* hitting with that character. Maybe later you'll decide that you want a BnB with less damage but better mixup options after it's over, or something else, but at least you'll have a good baseline start-

ing point to work from. (Stay away from fancy combo exhibition videos when you're looking for a good BnB; most of the combos in these videos are just for show and much too specific and demanding to try pulling off against an actual person.)

If you're not sure about a potential bread and butter combo, though, just answer the following questions:

///Can this combo be performed anywhere on screen?

///Can I reliably execute this combo?

///Is this combo safe if blocked?

///If this combo has any parts that are unsafe if blocked, do I have enough time to tell whether my opponent is blocking the combo or not before I arrive at that part? (This is called "hit confirming," and it's important at higher levels – something best explained in the next book, perhaps.)

///Can I perform this combo without having any resources (super meters, etc.)?

If the answers thus far are all "Yes," then ask yourself this last question:

///Have I gotten every bit of damage out of this combo that I can while still being able to answer all those other questions as "Yes"?

If that answer is also "Yes," then get to training mode: You've got yourself a brand new bread and butter combo.

///TROUBLESHOOTING c.MK xx FIREBALL

It's one thing to say that Ryu's bread-and-butter combo is a simple c.MK xx fireball, but it's another thing to actually do it yourself — so before we start breaking down long, complicated combos, we're going to take a minute to really focus on what your hands are doing when you're trying to perform this combo. And in doing so, we're going to walk you through some basic combo troubleshooting so you'll have an idea of how to figure out what's not working right when you're having problems with complicated combos.

Think of a combo as a series of instructions you're feeding to the game via your controller; first you want to perform the c.MK, then at just the right time, you want to cancel that into the fireball (hence the "xx"). So you're going to press down + MK to perform the c.MK, and then roll the stick from down to down-toward, then toward, and press punch immediately after the c.MK makes contact with the opponent. Note that you don't need to separate the two moves; the "down" from the c.mk counts as the "down" for the fireball, so you can just perform a normal fireball input (down, down-toward, toward + punch) and add a medium kick in there and it becomes down + medium kick, down-toward, toward + punch. Try that out a few times.

Now, depending on the way you're performing that input, you'll get one of a few outcomes: Ryu will appear to start the medium kick, but it won't hit and he'll go straight into the fireball; Ryu will connect with the medium kick, which hits, then he hits with the fireball and the screen says "2-hit combo" (this is ideal); or Ryu will connect with the medium kick, which hits, and then he throws the fireball, but the opponent blocks it (or it hits, but you don't get the 2-hit combo message).

What's going on here? Why would the same input have three different outcomes? Well, it depends on the instructions you're feeding to the game. Even though all three inputs have the same combo notation, the timing with which you give them to the game will change the way your combo comes out.

Essentially, the game works by reading your inputs and looking for

specific patterns; press standing LP, and you'll get a standing LP, unless that standing LP was preceded by a down, down-toward, and toward. But the game doesn't always demand that you produce those inputs *immediately*; you can perform the quarter-circle forward, then wait a bit, *then* press the punch to get a fireball as well. (Some games are more lenient than others, too — *Super Turbo* is notoriously fickle, while *Street Fighter IV* will let you perform a Dragon Punch by simply pressing down-toward, down-toward + punch!) So those three different outcomes depend on the timing with which you canceled the c.MK into the fireball.

If you get the first outcome, you completed the motion a bit too quickly (and were probably standing a little bit further away from your opponent); what happened here was that you pressed the punch button to complete the fireball input almost immediately after you pressed MK, and so you canceled Ryu's c. MK on the first cancelable frame of the animation (which, for his c. MK, is the first frame of the active phase).

But since Ryu's foot isn't fully extended during the first active frame of his c.MK, you were standing too far to actually hit with it before you canceled into the fireball, and instead you just got the fireball. Slow your timing on the punch button down just a little bit, and you should be able to get the full two hits. Time and sound are hard factors to try and represent in text, but your button presses for this particular combo should sound like "tap-tap" instead of "taptap." Sometimes, doing a combo this quickly will come in handy (homework hint: You might find this will help with a tricky combo, though it's not the full solution), but you don't want to go so fast for this one.

If you get the third outcome, you're performing the combo a little bit too slowly; Ryu is going through most of his c. MK's startup and active phase before you cancel into the fireball. That's why you're not getting the "2-hit combo" message — your opponent must have had a chance to block in-between the first hit and the second.

Remember that cancel combos rely on skipping out of a move in order to start up another one; in this combo, you just want the "good stuff" (the hit from the c. MK) with none of the "bad stuff" (the recovery from the c. MK). As soon as that c. MK hits, you should be finishing the fireball

input, and the longer you wait, the less likely your fireball will arrive in time to hit the opponent before they recover from the c. MK's hitstun. Try pressing the punch button a little bit earlier, instead. Also, make sure you're using multiple fingers for pressing buttons on the joystick, rather than just one (like you're a hunt-and-peck typist). Personally, I like to hit the medium kick button with my pointer finger and the punch button with my middle finger.

///CHUNKING COMBOS

When I sit down to practice a new combo, I typically start by running through the beginning of the combo and going straight to the end. It usually won't work the first time (or the fifteenth) so I'll start "chunking" the combo — memorizing it two or three moves at a time, getting those down, and then moving on to the next two or three. Once I've got a good feel for what it's supposed to look like, and what my hands are supposed to be doing (and when), I try to identify the "pain points" in the combo — in other words, the parts where I am more likely to fail. Once I've identified those pain points, I'll continue "chunking" the combo, with an emphasis on practicing those pain points until they become near-effortless.

Ryu in *Capcom vs. SNK 2* has a somewhat complicated bread and butter combo into super fireball; he needs to hit a crouching light kick, then a crouching jab, then a crouching medium kick, which he then cancels into the super fireball (down, down-toward, toward, down, down-toward, toward + punch). When I sat down to practice this combo, I found that my pain point was the last bit — crouching medium kick into super fireball — so I practiced that, figured out what my hands had to do to consistently get that, then worked that back into the original combo. If you think about it, a cancel is really kind of like learning a new move that's comprised of two smaller moves, so I need to learn how to do that on its own before integrating it into the rest of the combo.

Once I start getting the hang of the combo, I'll start practicing it in

little mental drills — maybe I'll practice it on one side until I can do it five times in a row without messing up, then try the other side. Eventually, I'll turn the training dummy on to CPU-controlled mode, and just play an endless match where I practice hitting the combo in less-controlled situations. Eventually, it's good to go against real human opponents.

The important thing to remember is that there is a lot of work involved in looking at a combo notation and downloading it into your brain so you can produce the actual motions. Combo notations are the order of outcomes you need to feed the machine in order to produce the combo, but they won't tell you things like “delay this attack a little bit so your opponent isn't juggled too high, because otherwise you won't be able to hit him with this attack later in the combo.” *Those* details are best left to your own trial and error, and help from others (be it in person or by watching a video). So don't get demoralized if you can't get it to work — instead, ask for help.

///BLOCKED COMBOS

So far, all the combo methods we've discussed have focused on chaining attacks together to do more damage — but that's not the only time you'd want to combo one move into another. Sometimes, you'll want to use your combos when your opponent is blocking, too.

In the previous chapter, we already discussed how forcing your opponent to block strings of moves can open up opportunities for mixups; train him to block a whole bunch, and you'll be more likely to successfully throw them since he's expecting that you'll keep on attacking. Blocked combos can be a good way to keep those strings going, and once you start training them to get used to your blocked combos, you can strategically introduce gaps in those combos to give you opportunities to throw, or bait out an attack and punish, and so on. This is a slightly more advanced technique called a “frame trap”, because what you're doing by leaving a gap in the combo is setting a “trap” where you hope your opponent uses an attack that will lose to the attack you're planning on

doing next.

Ryu has one blocked combo that is particularly useful for new players; canceling the recovery of his sweep (c.HK) into his fireball. In fact, this particular blocked combo is key to unlocking Ryu's potential for devastating footsies, but for new players it's not quite clear exactly why it's so important — especially since the fireball whiffs if the sweep hits! So, let's take a look at it.

Ryu's sweep is an excellent poke; it has little startup time, a reasonably long range, and it knocks down, giving you an opportunity to set up a mixup. However, if your opponent blocks the sweep, you're left at a frame disadvantage, since they'll recover from blockstun before you finish the sweep animation. Even if your opponent doesn't have a move fast enough to punish your blocked sweep, he'll still be able to seize the momentum and put you on the defensive.

Cancel the blocked sweep into a fireball, though, and you'll skip the recovery phase of the sweep and go into the startup for a fireball, which will hit while they're still in blockstun from the sweep, keeping them further in blockstun, pushing them away from you, and doing a little bit of chip damage — in other words, making Ryu's sweep much safer. And if you hit the sweep and cancel into the fireball anyway, no harm done; you'll still recover in time to start a mixup off the sweep knockdown.

By canceling your sweep into your fireball, you get the benefit of the sweep if it hits (damage plus knockdown for mixup opportunities), and the benefit of the fireball if the sweep is blocked (chip damage, safe for you on block)! Alone, both of these moves are useful, but when you string them together like this, they become more powerful still.

///HOMEWORK: RYU COMBOS

Enough reading about combos — it's time for you to try them for yourself. But instead of giving you normal homework for this chapter, we're going to give you a test. (Don't worry, it's open-book, and not timed.)

Before you move on to the next chapter, you should be able to

consistently perform Ryu's basic combos in ST. You should be able to combo his c. MK into a fireball, Dragon Punch, or Hurricane Kick, and you should be able to do so after landing a jumping MK or HK (including crossups). You should also be able to consistently cancel Ryu's sweep (c.HK) into a fireball of any strength for a useful blocked combo. And once you've done all that, you should be able to combo c.MK into Ryu's super fireball (qcf, qcf + punch). Be forewarned: This last one is hard, and there's a certain trick to it that you might not figure out for yourself, but that's okay, because it's an open book test! So consider it not just combo practice, but also practice using the Internet to learn more about fighting games.

Chapter Five: Eleven Tips For Not Sucking At Fighting Games



So far, this primer has been devoted to breaking fighting games down to their fundamental game design elements so you know what you're supposed to be doing and when you're supposed to be doing it — in other words, you now understand how the game works.

However, I know there are a few common pitfalls that newbies fall into while they're learning how to play fighting games that can be hard to notice at first, so here we go: Eleven practical tips that will make you less bad at fighting games.

///1. DON'T JUMP.

It may not seem like it to the fighting game novice, but jumping forward is an incredibly aggressive act. After all, you're basically throwing away your ability to block for a chance to get in on your opponent, even though a) they'll have plenty of time to react to it and b) pretty much everyone in any fighting game has a move that's designed to beat your jump-in, knock you down, and welcome you to a world of hurt.



This is what happens when you jump too much.

When you're in the neutral game, jumping forward should be

treated as basically free damage and a knockdown, and if you can't consistently punish people for jumping in at you, your first priority should be getting better at seeing jumps coming and punishing them with a solid anti-air normal or special.

Of course, there are good times to jump forward — punishing a fireball at an ideal range, or crossing up after a knockdown — but when you're still putting together your *Street Fighter* ABCs together, telling yourself to Never Jump Forward is a really good way to force you to rely on your footsies and anti-air skills to get the knockdown instead of jumping. If you must jump, jump straight up or jump back.

///2. PLAY A CHARACTER YOU LIKE.

This might seem rather obvious, but playing characters you actually enjoy playing makes it a lot easier to want to learn how to play a game at a high level. It's easier to spend time in training mode practicing combos and finding setups for a character you like than one you don't. (Note that this tip does not mean “ignore character tier lists/power rankings”; I'll cover that topic next.)

When you're figuring out which characters you like, though, you should probably do a little digging to figure out why you like them — not because there's any *wrong* reason to like a character, but because you might find that you like the aesthetics of Character A but don't like the way they actually play as much as Character B. And if you like playing Character B in Game X, you might like playing Character C in Game Y, because they're really similar.

Personally, I tend to enjoy playing characters that succeed by controlling space well from further out and using that control to gain the momentum (which, on the other hand, usually means they're not that great when they're being pressured). In *Capcom vs. SNK 2*, I mostly play with Athena, Rolento, and Vega (A-Groove); in *Marvel vs. Capcom 3*, I usually use teams built around Zero. Since I know this about myself, I'll often watch videos of other people playing a new fighting game before

I play it myself to see if I can get a clue as to who I'd like to start playing the game with first.

///3. LEARN THE TOP TIER.

I'm all for playing the characters you want to play with, but if you want to understand a particular game at a reasonably competent level, you really should check a tier list (player-written character power rankings) to see who the community thinks is the best and worst, and why. This isn't to say tier lists are objective statements of fact, because they're not; there are several games where the highest-tier characters never won major tournaments. What they're good for is telling you what kind of character assets you'll need to understand, and deal with, to be a competent player at this game.

Street Fighter III: Third Strike and *Marvel vs. Capcom 2* are probably the best examples for this tip because both games have an incredibly rigid top tier (Chun-Li, Yun, and Ken for 3S, and Storm, Sentinel, Magneto, and Cable for MVC2). Fact is, these sets of characters have abilities that define the rest of the game. Storm can switch between running away off-screen to waste time and build meter to rushing you down and mixing you up within a blink of an eye; Cable can kill any assist that you don't have protected in a split second; Sentinel is a great assist and a fantastic damage-dealer, and Magneto is so fast you'll be hit by a mixup before you even realize you should be blocking. This is the game you're playing, and if you insist on running a team like Hayato/Jin/Amigo, you're probably losing the game at the character select screen.

<i>Street Fighter III: Third Strike</i>			
Place	Player	Alias	
1st	 Shinya Ohnuki	Nuki	Chun-Li
2nd	 Justin Wong	Jwong	Chun-Li
3rd	 Yoshihiko Togawa	Nitto	Yun
4th	 Masahito Tsuji	Mester	Yun
5th	 Ricky Ortiz	HelloKitty	Chun-Li
5th		Kokujin	Dudley
7th		RF	Chun-Li
7th	 Joe Egami	MOV	Chun-Li

If you couldn't tell, Chun-Li is really good in Third Strike. (Results from Evo 2005.)

That doesn't mean you *can't* beat them with lower-tiered characters, just that you should seriously practice with these characters first to really know what you're dealing with. Maybe you'll find out that the "weaker" characters you like to use have some of the same abilities as the top tier ones, maybe you'll find out that you actually like playing with the top tier characters more; whatever it is, you can't say you really know the game unless you know who is good, and why.

Tier lists aren't the be-all, end-all for a fighting game, mind you. They shift over time as people develop new techniques, get more comfortable hitting hard-to-execute moves and setups, and learn specific matchups in more detail. In general, though, they're a handy reference for figuring out which characters offer the best domination potential per hour of practice.

///4. ACT WITH INTENTION.

In other words, you should always have a reason for doing something. High-level fighting game players press a *lot* of buttons. They're almost always stepping back and forth, jumping in place, whiffing light attacks, and

all kinds of other feints. (Some of us even like to exaggerate fake-hitting a button in order to get our opponent to react to it, which is fun.) These players pretty much always have a reason for doing everything they do, though.

When you press a button, know exactly what you're doing (the intended move) and why (the intended outcome). If it works, you know what you should keep doing and when to keep doing it; if it doesn't work, you can more easily diagnose what went wrong. Did you go for a sweep to hit someone out of a jump? Maybe that didn't work — try a crouching fierce punch, instead. Lots of getting better at a fighting game is trial and error, but if you don't know what you're trying and if/why it's failing, you won't have any idea how to improve. It's okay to be wrong about these things — you've simply found another thing that won't work — but unless you have a specific intended outcome every time you press a button, you'll never be *right*.

///5. LEARN HOW TO PLAY SAFE.

Believe it or not, the hardest thing to do — especially under the stress of competition nerves — is play conservatively. There is no honor in blindly rushing down your opponent, especially if you lose because of it. Learn how to take a small lead early on and turn that into a larger lead by being patient, not taking unnecessary risks, and punishing your opponent each time they get more and more careless with their attacks. In *Street Fighter*, cooler heads prevail (and also look like an awesome Zen Jedi Master while doing it).

Sometimes this means you'll be blocking a lot. Sometimes this means you'll be keeping your opponent away while waiting for the time limit to run down. That's okay! You're the smarter player, using every resource available to win. No one cares when a football team takes a knee to run the clock down — that's a tool that the game designers gave them to win, and it's not your fault that your opponent didn't play with that in mind. And if you find yourself routinely winning by not-fun methods,

then you're probably just playing a bad game.

///6. DO WHAT WORKS.

When something is working for you — maybe it's tick-throwing a lot, maybe it's using lots of high-priority moves, whatever — keep doing it. The onus is on your opponent to stop it (even if that opponent is also your best friend). If it's a casual match, go ahead and try and help your friend find ways around it, if that's what it takes! But don't stop doing what works, even if you have to do it 18 times in a row before someone figures it out; you don't do yourself or any of your practice buddies any favors by holding back like that. Also, don't get salty (read: frustrated) and call people "cheap", because it makes you sound like a newbie.

///7. THROW A LOT.

Throws are a great way to get in your head and remind your opponent that holding back is not a magical shield that will protect them from all harm. Learning how and when to throw is a vital skill in pretty much every fighting game that has throws, and I can think of very few situations where a player lost because she was throwing too much (unless she was throwing instead of landing big high-damage combos, perhaps). If people call you cheap for throwing, throw them out of your house — anyone who plays a fighting game should have gotten out of that mindset at least 15 years ago. Everything you think is "cheap" is really just "stuff you haven't figured out how to beat yet."

///8. WHEN YOU'RE TRYING TO FIGURE OUT WHAT WENT WRONG, LOOK AT THE BIG PICTURE.

Let's say your buddy catches you in a setup that you simply cannot get

out of — there's like, three ambiguous crossups, four throw opportunities, and 15% of guaranteed damage. Ouch! So you ask yourself, "How do I deal with this?"

Well, when you're trying to figure out how to deal with it, you *could* try practicing how to block those crossups and tech those throws — and really, that's not a bad idea — but the easiest answer is always "Well, don't end up there in the first place."

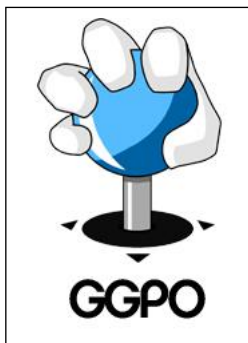
As such, the first question you should ask yourself is "How did I end up in that situation?" Maybe your buddy's setup starts with a risky jump-in; if that's the case, you're *never* going to let him get away with that jump-in again, and you won't have to worry about blocking three ambiguous crossups, teching four throws, and taking 15% in guaranteed damage. (Man, that's a pretty nasty hypothetical setup.)

///9. SPEND MORE TIME IN TRAINING MODE.

Obviously, it's great to get as much head-to-head practice as you can — after all, unless you're one of a rare few who get their rocks off by building ever more challenging combos and generally breaking games, that's probably why you're playing fighting games in the first place. But you won't get the most out of your head-to-head sessions if your execution isn't on point, or you're rusty with your characters, or you just haven't picked up the game in a while.

Some people are really devoted to training mode and use the advanced combo recording functions to practice dealing with specific setups; if you're up for that, that's great, but even just playing for a few minutes every day will help keep your game looking good. And that, in turn, will help you get the most out of your precious few head-to-head play sessions.

///10. PLAY ONLINE...SOMETIMES.



Between GGPO (PCs), Xbox Live, and PSN, we've got many different ways to find some real human competition without leaving home — something which competitive *Street Fighter* players in the past never had, meaning it was hard to get good at the game if you didn't live near an arcade. Unfortunately, fighting games are pretty much universally affected by lag to such a degree that you won't be able to recreate competition conditions while playing online, since we're dealing with games that can often come down to individual frames and adding usually about 70ms of lag on top of that can make a drastic difference in terms of how you execute your moves and react to your opponents'.

Here's the deal: Playing online is a great way to build your matchup experience, especially if you don't live in an area where you have easy access to other people who play every other character in the game. However, you have to keep in mind that it's really easy to develop bad habits by playing online *too much*. Players can take more risks, jump in more, and use more unsafe moves, because it's harder to punish mistakes when you're dealing with lag — and you may find that if you play online a lot, you'll find setups that work online but not in local multiplayer.

So, play online. Play a whole lot! But if you can, get some solid in-

person sessions in too, preferably with people who are good enough to bring you back down to zero-lag-land. Maybe you'll find that playing online will give you the match experience you need to be a better player, or maybe you'll find that it's too hard for your hands to constantly switch between "online mode" and "local mode".

///11. FIND NEW PEOPLE TO PLAY WITH — AND DESTROY THEM.

Even the most dedicated training mode warrior won't get better without people to push her to improve. In order to get better, you need people who are capable of beating your butt in different ways — which means that as you get better, you'll need to find new people to play with, and find ways to make your current practice buddies even better. In other words, you're only as good as the people you play with.

And, really, that's what fighting games are all about: Making new friends, and beating the virtual shit out of each other. So get to it.

///HOMEWORK: PLAY STREET FIGHTER!

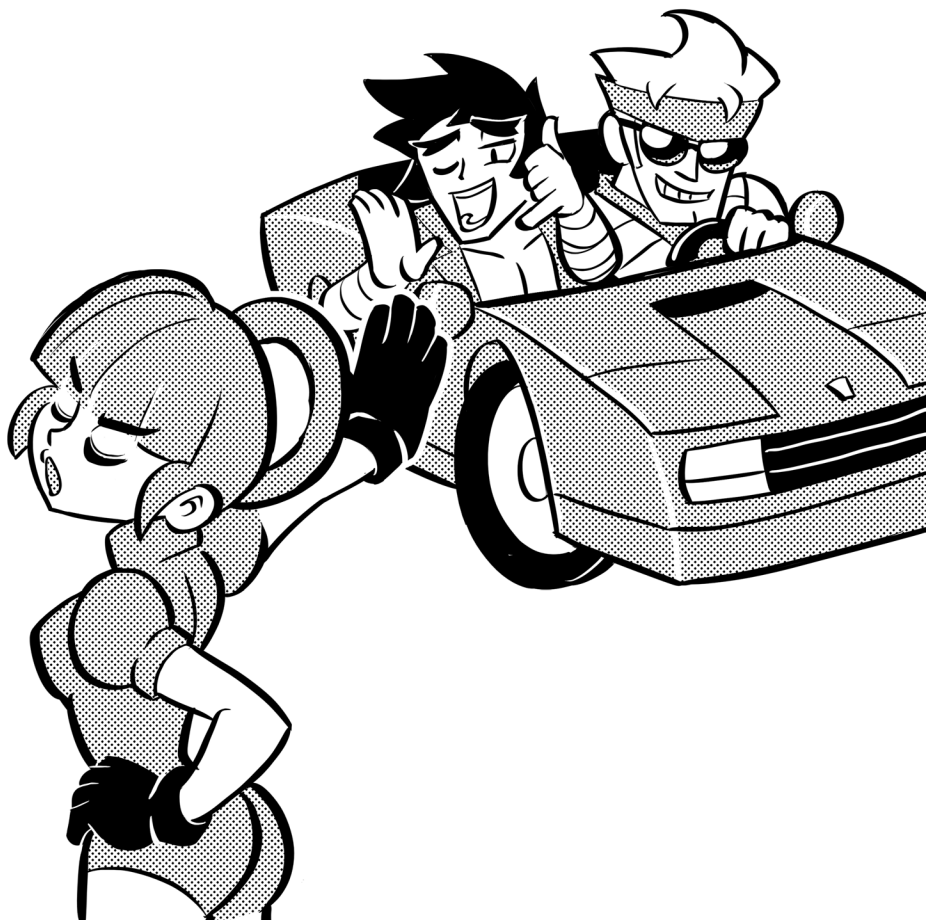
Congrats, reader — you're done with the first section of this book. But you're still a beginner. Reading about all of these skills and ideas is one thing, but absorbing them into your brain and hands so they become a part of you isn't something I can give you with a book. You have to do it yourself.

So, before you move on to the intermediate section of the book, I'd suggest you sit down and spend some serious time playing *Street Fighter* (either *Super Street Fighter II Turbo* or *HD Remix*). Play it online, play it with friends, play it in the nearby arcade (if you have one, anyway), go to a faraway arcade and play it there. Feel what it's like to put a quarter up and have a room of strangers judge your skills for yourself. Feel what it's like to lose so badly you're embarrassed. Feel what it's like to win so

badly you're embarrassed.

Your homework is to play *Street Fighter*. Play it for a week, a month, whatever. Play it until you can review this section of the book and think, "Yeah, I get this stuff." Once you feel like you've gotten the hang of basic *Street Fighter* — not *Street Fighter IV*, or *Marvel vs. Capcom*, or any other fighting game, but basic *Street Fighter* — then you should move on to the next section. Good luck, and have fun!

Chapter Six: Don't Want No Scrubs



If you're reading this, it means you've come crawling back for more. (That, or you just didn't heed my suggestions to play Super Turbo and let the lesson sink in for a week or so. Living on the edge, aren't you? Welcome to the Danger Zone.)

The first section was called Everything You Need To Know About Fighting Games because it's intended to describe a basic fighting game in the most simple terms possible, so you understand how the game playing actually works. If you don't understand how Attack-Block-Throw works, or how hitboxes work, or crossups, or fireball/DP traps, or any of that, you're not playing *Street Fighter*, you're pressing buttons.

That isn't to say you can't learn a thing or two by doing so, but whatever you learn won't be properly grounded in a strong understanding of the actual game you're playing. It's kind of like getting good at basketball by just practicing free throws over and over, and discovering in an actual game that you need to learn how to dribble.



Sean is probably better at basketball than fighting.

At this point in the game, I consider you literate in fighting games; you should be able to pick up a new game and kick the tires, so to speak, by figuring out how different characters and combos, etc. all work. You should have a working understanding of Ryu in Super Turbo, at least, and that understanding should help you understand other characters'

strengths and weaknesses as well. You are literate, but you are not competent.

/// AVOIDING THE SCRUB MENTALITY

Part of becoming competent at *Street Fighter* is knowing what a good *Street Fighter* player looks like — and we’re going to do that by describing its opposite, the Scrub, first.

The Scrub is the guy who walks into the arcade and thinks he’s hot shit even though no one has ever seen him around before. He’s the guy who enters the tournament and refuses to play his competition characters (or even the fighting games he’s entered entirely) because he doesn’t want anyone to learn how to “counter” his super-secret techniques. He may yell at you for throwing him repeatedly, or doing the same move over and over, because it’s “cheap.” He’s never met you, but he thinks he could probably beat you, and if you won, well, it’s because he isn’t used to the arcade sticks, or his hands were cold, or he ate too much pizza and got grease all over the buttons. (Ew.) And he probably does way too many wakeup DPs/supers/etc.

Note that I am describing the Scrub mentality (also known as “Scrubbiness”) independent of any estimation of his actual skill. Scrubs can learn combos, scrubs can learn matchups, and scrubs can become quite good at fighting games — good enough to beat you, and even beat top players every now and then. “Scrub” is not an estimation of one’s skill, but rather one’s way of thinking about fighting games.

When I was getting acquainted with the local fighting game community during my early days, I met a scrub. Said scrub was a nice guy, but he had one rather annoying facet to him; he was ridiculously confident in his CVS2 game, and what’s more, he was rather vocal about it. He could put in decent results in local tournaments, but he didn’t always play particularly intelligently; he relied on tactics that top players could punish without a problem.

In other words, he was good at beating people who weren’t very

good at *Street Fighter* fundamentals. But against capital-G Good *Street Fighter* Players, Scrub almost never won — not because he was somehow hitting an insurmountable skill barrier, but because he didn't see that what he thought of as his unique skill and flair and playstyle was, in fact, just a really bad gameplan at the higher levels of competition. That right there is the essence of scrubbiness; the ego and naivete to believe that you play the way you play because it's something only you can do, instead of the cold hard reality, which is that if you tried to play like a top player does, you'd discover you're bad at it.

The fact is that getting good at *Street Fighter* —much like getting good at just about anything else — requires that you learn the rules first before you can break them. It means being willing to shamelessly copy and steal anything you can see around you in order to get better, and expose yourself to painful virtual butt-kicking after butt-kicking in order to improve. And the first thing you can do toward that end is to lose your ego.

///LOSING THE EGO

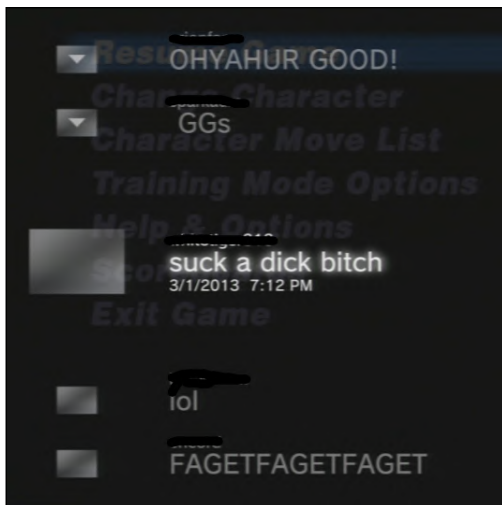
If we're going to turn you into a chunk of raw, merciless, *Street-Fighter*-playing flesh, the first thing we need to do is make sure you've got a winning attitude. And the first step to building that is to look in the mirror and say to yourself, "*I suck at Street Fighter.*" Do it: I'll wait.

There, that's better.

Understand this: Everything you do while playing this game is just a flawed, imperfect version of the way the game Should Be Played. Your mixups are gimmicks with holes a mile wide; your footsies are weak and predictable; your combo execution is awful; your matchup understanding is shallow. The only way you can get better is to play against more people, at all skill levels, and throw your pathetic game upon them over and over until their virtual fist drills a new understanding into your vir-

tual head. It doesn't matter if you can do fancy combos, or you're ranked really highly online, or you totally beat this guy 10-0 in casual games. In order to be good at *Street Fighter*, you need to surrender your ego and expose your game to as many people as possible.

For the rest of this chapter, you are not allowed to think you're better than anyone else at *Street Fighter*. When you win a match, you may only feel grateful that you were spared a beating — *this time*. When you lose, feel grateful that your opponent has deigned to waste their time beating on your pitiful behind when they could be learning from a much stronger opponent.



This is what my PSN inbox looks like.

Part of killing your ego means having no secrets. Don't hold off on using a character or a setup because you're worried that your opponent will adapt to it. Use that character and setup over and over until your opponent has adapted to it completely. Continue to use it so you know what it's like when your first-game tricks don't work any more and you

have to play the game against someone who knows you better than you know yourself. *That* is how you get better.

Another part of killing your ego means not making excuses. If you messed up a combo and lost a match, that means you're the inferior player, not that you "just messed up a combo," so go work on your execution until you don't mess it up again. If you get thrown in ten times in a row, or eat the same poke twenty times in a row, don't call it "cheap" or "overpowered." No one's stopping you from throwing ten times in a row or picking the same character and performing the same move twenty times in a row, so either do *that*, or figure out how to beat it. The only person who can make you with this game is *you*, so quit making excuses and practice more.

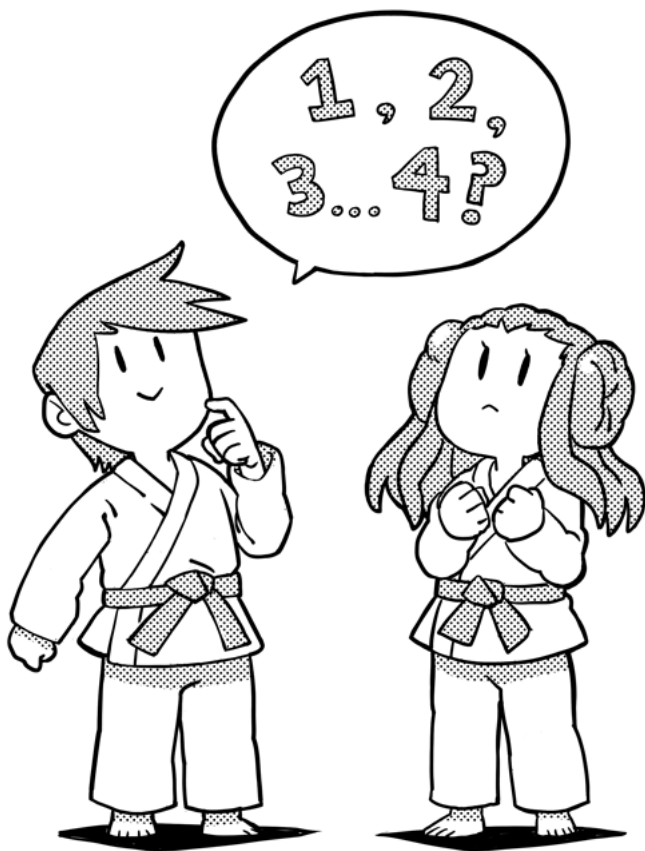
You probably won't be able to kill your ego completely, and that's okay; some people work hard because their ego won't permit them to lose. But know that your ego is something that you need to control if you want to get good at fighting games (or anything else), lest it inhibit your growth.

Now: Take a deep breath, look in the mirror again, and ask yourself if you can do this. If the answer is Yes, then move on — we're going to turn you into a bona fide *Street Fighter* player.

///HOMEWORK: LOSE GRACEFULLY

There's no easy way to teach this lesson without a little homework. Your goal before moving onto the next chapter is to hop online and play until you've lost to at least ten different people. After each loss, message them, congratulate them on a good game, and ask them for tips.

Chapter Seven: Introducing Street Fighter IV



In the first section of the book, we covered *Street Fighter* fundamentals, and there's no better way to do that than to spend some quality time with Super Turbo/HD Remix. ST/HDR is a great way to learn the basics, because everything is very simple and laid bare for you to see — it doesn't have any complicated combo systems or real meter management mechanics, the roster of characters is fairly small, and each character has a fairly simple movelist. However, Super Turbo is about 20 years old at the time of this writing, and in that time, fighting games have changed a lot — not in terms of the fundamentals, which stay true to the Super Turbo days, but in terms of all the additional layers of systems and mechanics that have been grafted onto the Super Turbo framework.

We're going to switch over to *Street Fighter IV* for this last chapter of the book. Super Turbo is great, and you can always build up your fundamentals by going back to it, but we need to switch to a modern fighting game if we're going to make you a proper *Street Fighter* player. The *Street Fighter IV* series is actually something of a return to the series's roots, and bears the closest resemblance to Super Turbo out of any of the newer fighting games. It is the de facto standard fighting game of the moment, so it's ideal for our purposes of cultivating your general fighting game competency. (It's also a decent game in its own right, and worth learning for that reason alone.)

So grab a copy of the latest version of *Street Fighter IV* (as of this writing, that's *Ultra Street Fighter IV*) and let's keep up the learning! In this chapter, we're going to walk you through the basics of *Street Fighter IV*'s fighting game skeleton, and explain how that framework changes the Ryu vs. Ryu matchup as we knew it from Super Turbo.

///WHAT IS A CHARACTER SKELETON?

Now that we've moved from Super Turbo to SF4, we're going to revisit the Ryu vs. Ryu matchup and see what it teaches us about the new game. First off, you'll be surprised to know that, in most respects, he's exactly the same character he was in Super Turbo. His moves mostly

behave more or less the same (and in many cases, they're the exact same move, just now in 3D). His sweep doesn't cancel into a fireball any more, his Dragon Punch invincibility has changed significantly, and his toward + HP is a lot slower now, but otherwise, his moves from ST haven't changed much.

What *has* changed, however, is the “character skeleton” that Ryu is built on. In fighting games, the “character skeleton” refers to the set of abilities that everyone in the game has. In Super Turbo, the character skeleton is pretty sparse; everyone can block, attack with six buttons, throw with toward or back + HP or HK, and...that's it.

Since Super Turbo, though, new games have added and changed the character skeleton to give players more tools and options. *Street Fighter Alpha 2* gives everyone a super meter that they can use to perform super moves, immediately cancel out of blockstun with a counter attack (“alpha counter”), and activate a special combo mode (“custom combo”). *Street Fighter III: Third Strike* gives everyone a way to deflect attacks by pressing toward (or down, for low attacks) called a “parry,” a super meter that can be used to perform super moves or powered-up existing moves (“EX moves”), and a quick attack performed by pressing MP + MK that must be blocked high (“universal overheads”). *Capcom vs. SNK 2* introduces six different character modes called “grooves” that combine different elements from loads of different fighting games, where each groove represents a different character skeleton that gave the players access to different counters, mobility options, super moves, defensive techniques, and so on.

In light of all those other games, *Street Fighter IV* actually cut out a lot of systems to make things more simple, but it's still more complicated than ST's skeleton.

///STREET FIGHTER IV BASICS

First, let's get the basics out of the way. Regular throws are now performed by pressing LP + LK at the same time, instead of toward or

backward + HP or HK. If you're out of range to throw, your character will reach out to grab and miss, which makes you vulnerable for a short period of time. If you're pressing toward or backward when you throw, you'll throw your opponent in that direction. Air throws, for characters that have them, are performed the same way.

This change may seem rather minor, but it makes a pretty big difference in how you throw, because, for better or worse, you'll pretty much never get a throw on accident. For example, if you're standing next to me in Super Turbo and I try to throw you, but you jumped up before I input the throw, I'll get a standing HP instead — which will probably hit you while you're on the way up from the jump. In SF4, you'll just get a whiffed throw, and your opponent will have plenty of time to punish you for that whiffed throw on the way down from the jump.

Tired of walking everywhere? Everyone now gets a “dash”; just tap the joystick forward twice or backward twice, and your character will quickly move in that direction. While dashing is much quicker than walking, you cannot block or perform any moves during a dash, so you're completely vulnerable. Not everyone's dash is equal, either. Some characters have very quick dashes that are hard to punish, and others have longer dashes that might cover more distance but are easier to see coming.

Also, when you're knocked down, you can choose to “quick stand,” which stands you up more quickly, by pressing down on the joystick (or any two attack buttons) right after hitting the ground. This can come in handy for messing with your opponent's timing when it comes to setting up mixups or chipping you out with meaty fireballs, but some knock-down moves (sweeps and throws, for example) prevent you from quick standing.

///SUPER MOVES AND ULTRA COMBOS

The super meter from Super Turbo is back, and it's more important than ever; it now has four “stocks,” or “levels,” and you only get access to your super move once you've filled all four of those stocks (by performing

moves and doing damage to your opponent, blocking your opponent's attacks, and so on). In addition to your super move, you can also use your meter to perform supercharged versions of your special moves, called "EX moves," for one stock, or cancel out of pretty much any normal or special move for two stocks (we'll talk more about this later). Also, your super meter now carries over from round to round, so if you blew your entire meter at the end of one round and your opponent didn't, they'll be carrying that extra meter into the next round.

The super moves themselves have gotten more useful, too; most characters can cancel into a super from pretty much anything, making them much more easy to combo into. In Super Turbo, Ryu's Shinkuu Hadouken super was pretty hard to combo into (as you should remember from your homework assignment!); in SF4, you can do c.MK xx normal fireball xx Shinkuu Hadouken, or c.LP, c.LP xx Dragon Punch xx Shinkuu Hadouken, or whatever. It's much easier to land, but much more expensive, because all that super meter could be used for so many other things.



Ryu's new super Shinkuu Hadouken.

New to Street Fighter IV is the Revenge meter, which can be used

only to perform Ultra combos — basically a higher-damaging kind of Super that is usually harder to combo into. Unlike the Super meter, the Ultra meter only builds up when you take damage, and has two levels — one at halfway, and one at full. Once your meter fills up halfway, you can perform your Ultra combo, but it won't do its full damage until your meter has filled up completely. Revenge meter does not carry over between rounds, so use it or lose it!

Note that each character has two different Ultra combos; at the character selection screen, you must choose which character you want to use, and then choose the Ultra you'd like to access, or choose the Ultra Combo W option (Ultra SF4 only), which grants you both Ultras but brings their damage down slightly. Different Ultras grant the player different options; Ryu can choose between the Metsu Shoryuken, which is basically an incredibly powerful Dragon Punch, and the Metsu Hadouken, which is a high-powered fireball. The Metsu Shoryuken does much more damage, but it is harder to combo into and practically useless outside of combos; the Metsu Hadouken is more versatile and easier to land, but it does significantly less damage.



Compared to Super moves, Ultra combos tend to be more damaging and easier to acquire (you're guaranteed one per round), but they're usually more risky and harder to combo into, since they usually have much longer startup and recovery phases than Super moves and you'll only be

able to link into them. If you miss an Ultra combo, you're probably going to eat some serious punishment in return.

///FOCUS ATTACKS

The last major addition to the Street Fighter IV series is a new mechanic called a "focus attack": When you hold down MP + MK simultaneously, your character will start a "charging" animation, and you can let go at any point in that animation to perform the attack itself. As you hold the two buttons down to charge the attack, the attack will increase in power. This picture from EventHubs of the SF4 arcade cabinet decals clearly illustrate how the system works:



First, you guird by saving attack. If you want, you can cancel attack by saving make your comb. At level 3, it's Unguirdable, so you chuse and attack.

Whoops.

A level one focus attack can be performed immediately without charge, and if you hit your opponent with a level one focus attack while they are in the middle of performing an attack (a “counter hit”), they’ll be put into a special sort of hitstun called a “crumple stun,” where their character will slowly fall to their knees and you can follow up with a combo.



After getting hit by Ryu's level 2 focus attack, Dan crumples down to his knees.

Charge the attack for a second or two, and your character will flash white, meaning you can release a level 2 focus attack, which will cause a crumple stun even if you don't get a counter hit. Hold it down for a second or two after *that*, and you'll automatically perform a level 3 focus attack, which is unblockable, causes a crumple stun, and can absorb a hit during the attack animation and still proceed uninterrupted.

While you are charging your focus attack, you cannot walk forward or backward, block, or perform any other moves. You *can* absorb a single hit with what is referred to in fighting games as “super armor,” and the damage done by that single hit is counted as “provisional damage,”

which means that it's deducted from your lifebar when the attack hits, but your character will slowly regenerate that health back *unless* your character is hit with an attack that does not-provisional damage before your character is done regenerating.

For example: If I use a focus attack to absorb a fireball, and then my opponent sweeps me, I'll take the damage for both the fireball's provisional damage *and* the sweep's normal damage. If I absorb the fireball and block the sweep, I will gradually regenerate the fireball's provisional damage until my health is back to normal. Also, note that super armor won't protect you from everything; you can still be thrown while charging, and some attacks (most reversal special/super/ultra moves, for example) can "break" the armor with a single hit.

Besides the properties of the focus attack and charging state themselves, there are two important details to this mechanic you should pay special attention to. First: While you can't walk forward or backward while charging a focus attack, you can cancel out of a focus attack charging animation or the recovery phase of a focus attack by dashing forward or backward. This is called a "Focus Attack Dash Cancel," or "FADC" for short.

You can only FADC out of the focus attack's recovery phase if the attack hits your opponent (whether they blocked or not); if you whiffed the focus attack, you're stuck waiting for the rest of the move to complete. Second: You *can* cancel into a focus attack from just about any normal or special move by pressing MP + MK, which is called an "EX Focus Attack" and costs two stocks from your Super Meter. When you perform an EX focus attack, your character will flash yellow, stop whatever she was doing, and start charging the focus attack.

Naturally, you can use these two systems in conjunction to extend combos or make unsafe moves safer; if you're worried about getting mixed up after a knockdown, for example, you can perform a wakeup Dragon Punch, cancel the first hit into a focus attack, and then cancel the focus attack charge into a forward dash. If the Dragon Punch hits, you could potentially follow up with another Dragon Punch (or even an Ultra, if you have enough meter to perform one); if they blocked the

Dragon Punch, you safely canceled out of it before she could punish you. It's like a get-out-of-mixup-free card, for the low, low cost of half your super meter.

///RYU vs. RYU, RYU-VISITED

As you can see, while Ryu himself may not have changed that much from his Super Turbo days, the game he's playing is very different. Yet even though Super Turbo and *Street Fighter IV* are so different, they have more in common than any other two *Street Fighter* series when it comes to how the game is played. I think of the *Street Fighter IV* series as an attempt to update Super Turbo's fundamental core classic game design for a modern audience by fixing a few "problems" with Super Turbo. (I say "problems" because for Super Turbo diehards, the things *Street Fighter IV* "fixes" weren't problems, they're just the way the game works, and there's nothing wrong with it.)

For the rest of this chapter, we're going to look at four common situations in the Super Turbo Ryu vs. Ryu mirror match (though you'll see these situations in plenty of other matchups, too), and show how *Street Fighter IV*'s character skeleton is designed to give you a few new toys to play with.

///#1: The Fireball Problem



by Matelandia on DeviantArt (via Capcom-Unity)

Close your eyes and think about Street Fighter's most iconic image: Ryu and Ken staring each other down, fireballs at the ready. It's a perfectly dramatic moment that evokes everything we love about Street Fighter. It's also probably the scene we've seen most often while watching Street Fighter matches: Lots and lots of fireballs that meet in the middle, followed by other fireballs.

By now, you should have enough Super Turbo experience under your belt to know just how fireball-heavy ST is, especially when you're playing with particularly fireball-dependent characters like Ryu or Sagat. You and I know that if you're just a few frames late in the fireball exchange, you'll end up being pushed out to the opposite side of the screen, eating fireballs every time you try to jump and gradually being chipped to death each time you block one. To us, the bitterness of being put in fireball hell is balanced out by the sweetness of putting other people there.

To people who just kind of casually played *Street Fighter* a few times, though, it just tells them that fireballs are "overpowered" and "cheap," and ultimately, "Screw this game." In other words, Super Turbo's emphasis on fireballs for controlling match pace and screen space is kind of an acquired taste, and many casual players will get frustrated long before they're able to acquire it. This is **The Fireball Problem**.

Street Fighter IV isn't the first time Capcom has tried to solve The Fireball Problem, but it is probably their most successful attempt. The *Street Fighter Alpha* series greatly lowered fireballs' speed and power, and gave players the ability to block in the air, which made fireballs much less intimidating. *Street Fighter III* introduced the Parry system, where players could tap the joystick toward right before an attack hit your character in order to deflect the attack without taking any chip damage or being sent into blockstun; of course, since fireballs from the other side of the screen are incredibly easy to see coming, fireballs were pretty much useless as a tool for controlling space.

In *Street Fighter IV*, fireballs are very, very good — better than they've been in any *Street Fighter* game since Super Turbo. However, they can no longer keep you pinned at full-screen indefinitely. Pretty

much every character in *Street Fighter IV* has a few tools that will let them close the distance on a dedicated fireball-hurler, but each tool has a cost.

If my Ryu is getting zoned out by fireballs and I wish to close the distance, I can throw an EX fireball, which will eat up a regular fireball and keep going to knock down the opponent if it hits (or at least force them to block if it doesn't), at the cost of one super meter stock, or if I have a full super meter, I can burn it all for a Shinkuu Hadouken super, which will knock down *and* do some serious damage.

Or I can try using my hurricane kick to dodge the fireball and either close the distance or possibly even hit the opponent (though if I don't have perfect timing and spacing, I'll probably get hit with a Dragon Punch or possibly even a full combo).

Or I can simply start charging a focus attack, use its Super Armor to soak up the fireball hit, and dash cancel to close the distance.

In Super Turbo, each time you try to get in and guess wrong, you eat a fireball and get pushed back out, meaning you have to try and get in again. In *Street Fighter IV*, you can use focus attacks and dash cancels to close the distance much more easily, and while there's still risk involved from all the provisional damage you'll take, it's not quite as oppressive as a good ST Ryu or O. Sagat player. Also, when people knock you down, making them get up into a meaty fireball isn't as easy or as useful as it was in ST (because fireball blockstun isn't nearly as big a deal and players can press a button while knocked down to stand up more quickly — quick stand — which means they can mess with your meaty timing), so you won't see people stay outside and continue to zone you out with fireballs after knocking you down nearly as often. In order to control the screen with fireballs like you're accustomed to in Super Turbo, you'll need to burn meter on EX fireballs, which you simply can't use as often.

///#2: The Footsies Problem

In the first section, I introduced you to the concept of “footsies,” wherein two players engage in a deadly-yet-delicate ballet of walking

back and forth in and out of each other's attack range trying to score a knockdown and create an opening for a high-damage mixup. A game with good footsies is a beautiful thing — for the experienced player. To a casual observer, however, it can look like two high-level players are just missing their attacks a whole bunch, or spamming the same buttons over and over.

Also, from a design perspective, it's incredibly hard to design so many characters with so many different moves, fine-tune the game so that each character has a reasonable shot at winning a match against any other character, *and* make each character's moves look and feel unique. When you don't do this, you end up with games like *CVS2* — a great game despite the fact that its first few years were defined by Sagat's crouching fierce punch.

In *Street Fighter IV*, footsies are still present, but the focus attack system adds a new layer of complexity to it. It used to be that whichever player's hitboxes touched the other player's hurtboxes first won the exchange — which meant lots of Ryus sweeping each other over and over — but the focus attack changes all that.

Essentially, focus attacks end up forming something of a counter to long-range, heavy pokes like Ryu's c.HK; since they can soak up a single hit, you can charge the focus attack when your opponent tries to sweep you, cancel the focus charge into a dash, and attack your opponent while they're still recovering from the sweep. Light attacks will come out fast enough to interrupt the focus attack, and medium attacks can usually be canceled into something that beats the focus attack (like a Dragon Punch), but heavy attacks can often be punished by the focus attack itself, or a dash-cancel into a combo.



Ryu uses his focus attack's armor to absorb the second hit of Guile's sweep so he can immediately counter before Guile recovers.

In Super Turbo, you'd have to beat the sweep by throwing a fireball at just the right range, or by baiting your opponent into sweeping and sweeping their sweep attempt; in *Street Fighter IV*, you can do all that or you can just hold down two buttons, soak up the sweep, and punish.

In practice, this means that Ryu's sweep as a poke is significantly less useful than it was in Super Turbo (especially because you can no longer cancel it into a fireball), and the c.MK has become even more useful as a result. Since sweeps are less useful, Ryu mirror matches are more likely to be decided just outside the range of Ryu's c.MK, where in Super Turbo it was just outside the range of the c.HK. It might seem like a trivial distance — it's just a few pixels — but it has the effect of encouraging players to stay in much closer, "dogfighting" range in order to press the offense, where Super Turbo would often reward Ryu players for forcing their opponents to earn their way inside.

///#3: The Comeback Problem

Comebacks are a tricky thing to pull off in Super Turbo. On one hand,

compared to SF4 and other modern fighting games, *everyone* in ST does obscene amounts of damage, so you're never really completely out of the game. However, the more life meter you have left, the more risks you can take without losing the round, and conversely, the lower your life, the fewer risks you can take — which means you're less likely to be able to pull out a high-risk, high-reward play that evens the round out. You can think of your life meter as roughly similar to your chip stacks in Poker; when you're the chip leader in a head-to-head game, you can use your money to weather riskier plays and bully your opponent into committing to hands that give him bad odds.



Landing an Ultra on Seth is the most satisfying feeling in the game, by the way.

In Super Turbo, you can build a significant life lead and then slow the game down by playing carefully and using fireballs to stuff your opponent's momentum and chip their health down, making it hard, but not impossible, to make a comeback. If you have a super stored up, you can land it and get back in the game, but odds are that if you're losing, your opponent has already built up a super before you have, restricting your comeback chances even further.

From a game design perspective, this is mostly a Good Thing; if it were too easy to make a comeback, no one would ever work hard to earn an early advantage. However, competitive games need to be designed with a certain degree of comeback potential in mind, because a) no one likes playing a game where the first point decides who wins the rest of the game, and b) no one likes *watching* a game where the first point decides who wins, either, while we all like watching a good comeback.

Street Fighter IV introduces a very explicit comeback mechanism; the Ultra meter *only* charges up when you take damage, so by just getting beaten up you're guaranteed access to a move that will do from 35%-60% damage. The Ultra combo is powerful, but it's tempered by the fact that they're tricky to land compared to a Super, though, and you'll typically have to burn some Super meter on cancels or EX moves to land the Ultra. Also, once you land the Ultra, you'll have done enough damage for your opponent to build his own Ultra meter, and the ball will be in his court.

These three caveats to the Ultra combo have a rather fascinating effect on the way an SF4 match plays out; essentially, it means that once your health is below ~50% and your opponent has an Ultra, you could lose the whole round if you make a particularly critical mistake or your opponent succeeds with a particularly gutsy setup.

Each SF4 character can choose one of two different Ultras, and each Ultra offers a character a different tactical option. Ryu's most commonly-used Ultra is the Metsu Hadouken, because it's the easiest to combo into; realistically, though, you're going to see most Ryus land this by comboing into a Dragon Punch or hitting an anti-air Dragon Punch, canceling into a focus attack, dash canceling the focus attack, and performing the Ultra.

That means that any time Ryu has Ultra *and* two stocks of Super meter, you should be particularly careful not to jump in on him — but it also means that the Ryu player needs to hold on to those two Super meter stocks, because if he burns one on an EX fireball to bait you to jump, he won't be able to FADC the Dragon Punch and combo the Ultra.

The end result of the Ultra mechanic is that it gives a losing player a chance without giving them an advantage, which is *just* the right amount of comeback potential. Essentially, once at least one player has less than 50% life remaining, the stakes are raised (even the game's background music changes!). The losing player may only be one or two combos away from losing the round, but the winning player could be brought down to that level after making only one mistake. Just as in Super Turbo, the winning player in SF4 is best served by playing a more conservative game (as well-known Starcraft personality Artosis puts it: "When you're ahead, get more ahead."), but that player's options are constrained somewhat by the threat of the high-damage Ultra lurking in the background, which should give the losing player a little more freedom to act aggressively.

After all, if you're worried about eating a 40% combo each time we play Attack-Block-Throw, you're probably more likely to Block than Attack or Throw — which means, of course, that I will throw you a few times for some free damage, and *then* hit you with the 40% combo. This stands in direct contrast to Super Turbo, where it was comparatively easy (especially for a Ryu player) to get ahead and then stay ahead in most matchups.

///#4: The Super Problem

The main element Super Turbo introduced to the *Street Fighter* series was the idea of the super move: an extra-powerful move that you can only use once you've filled up a meter. Compared to later *Street Fighter* games, super moves in Super Turbo are very powerful and you can fill the meter relatively quickly. For example, Ryu's super fireball will take out half your health bar and absorb any fireballs in its path on the way there, and you can fill your super meter just by performing a few safe air hurricane kicks.

Since Ryu's super unlocks so many options (your opponent won't want to jump in or throw fireballs at certain ranges for fear of eating that super), you want to build that meter up as soon as possible, because

the presence of that super can be downright oppressive in terms of shutting down or discouraging any remotely aggressive play from the other player. From a design perspective, having a high-powered super move is fine, but you don't want games to be dictated by who gets their super first — nor do you want players to disengage entirely at the beginning of the round until they both had their super meters built up, which wasn't terribly uncommon.

In *Street Fighter IV*, supers are very good, but their damage is much lower (think 30-40%), and it takes a long time to build up a whole meter (about one whole round, usually, and you don't build much meter for moves that don't hit). Meanwhile, that meter is now a precious resource; you need to use it for EX moves and focus attack cancels, too, and it carries over from round to round, so you might find yourself choosing to save meter in a hopeless first round in order to give you an advantageous start in the second round.

And since so many characters rely on focus attack cancels to land their Ultras, saving your meter for a super means potentially not being able to access your Ultra. EX moves let you easily swing the momentum in your favor and do a little more damage, and focus attack cancels let you make high-risk gambles (like wakeup Dragon Punches) safe *and* let you combo your Ultra, so you won't often see many players saving up for that super. Essentially, *Street Fighter IV* retains the way Super Turbo's super moves gave you additional options, without putting it all into one highly-damaging move.

Now, when a Ryu player in *Street Fighter IV* has a full meter, you can worry about him beating your fireball with his EX fireball *or* throwing a regular fireball and chasing after it with a focus attack cancel to put on pressure *or* tacking an easy 25% extra damage after hitting with just about any of his moves and canceling it into the super fireball *or* being able to wakeup Dragon Punch with impunity because if you block it he can just focus attack cancel it to make it safe, *or, or, etc.* In addition to being good at the nuts and bolts of *Street Fighter*, you're also expected to learn how to properly manage your super meter usage to increase your chances of winning. It's a much more complicated game design mechan-

ic than super moves were in Super Turbo, and in this case, that's a good thing: It means players have to make complicated decisions very quickly ("Is it worth it to spend this super meter right now?") instead of making the game too simple ("If I can build my super meter first, I win!") which can sometimes happen in Super Turbo. In *Street Fighter IV*, you don't just have to be good at hitting your opponent and not getting hit, you also have to be good at managing resources.

///RYU'S NEW SKELETON

At the beginning of this chapter, I mentioned that Ryu didn't have all that many significant changes to his movelist between ST and SF4, and it's true — he really doesn't! Pretty much all his moves are recognizable from their ST counterparts, and it's not hard for a player from one game to quickly understand how he plays in the other. But his character skeleton is different, and that makes a *huge* difference.

In the first section of this book, I said that Ryu is the character that embodies the essence of fighting games; that is, Attack-Block-Throw in close, and the Footsies/Fireball/Dragon Punch jousting at range. By describing *Street Fighter IV* in terms of the "four problems" of ST, I want you to understand that the changes from these two versions are basically designed with Ryu in mind; the designers still wanted to maintain the Attack-Block-Throw and Footsies/FB/DP dynamics, but in ways that avoided some of the perceived pitfalls in Super Turbo's design — pitfalls that, incidentally, made Ryu really good in ST.

In other words, the SF4 character skeleton is more or less designed to give every character in the game a viable shot at playing those two game dynamics against Ryu before even taking their individual moveset or attributes into account. Eighteen years after the release of *Street Fighter II*, Ryu is *still* dictating how fighting games are developed. Talk about a legacy!

The downside is that all these new elements in the character skeleton make it so Ryu is far less dominant a character. He's generally

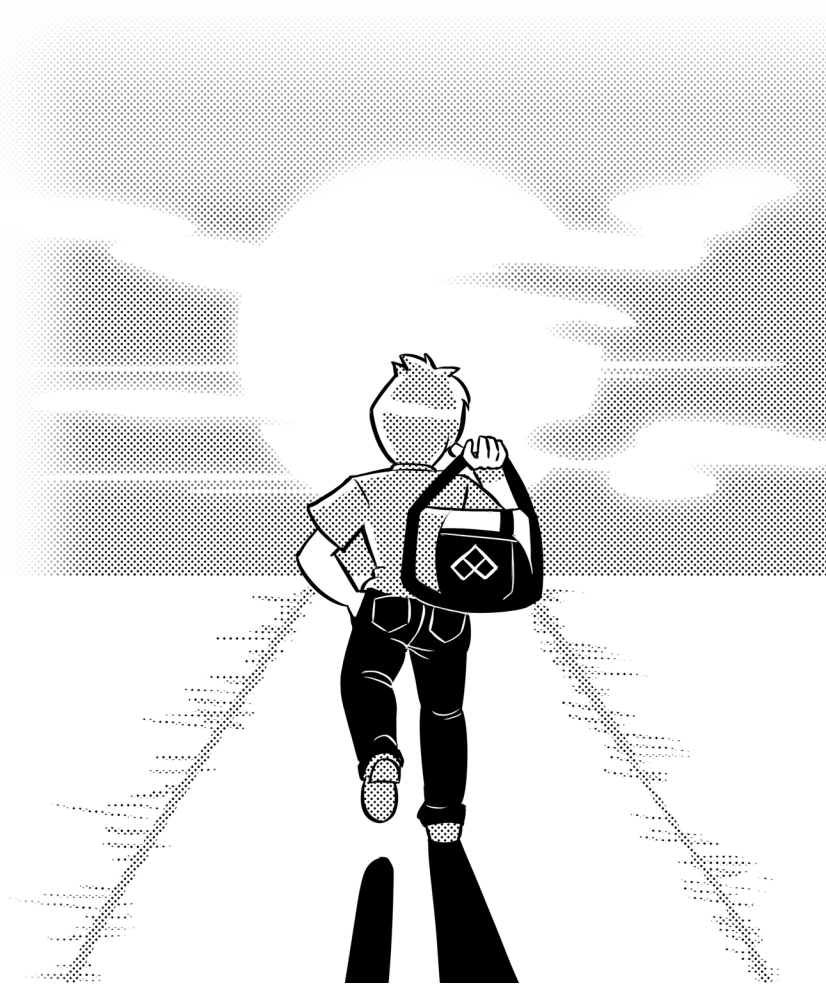
ranked somewhere in the middle, as far as the latest version of SF4 goes. But that doesn't stop high-level players like Daigo "The Beast" Umehara from wrecking shop with him, proving fundamentals are still the most important part of a fighting game player's skillset — something Ryu himself would probably agree with.

///HOMEWORK: RYU VS. RYU, ONE MORE TIME

By finishing this chapter, you've started on the path to learn a new fighting game. And what better way to break in a new fighting game than to play a few hundred Ryu vs. Ryu mirror matches? Your homework is to play a *lot* of Ryu/Ryu mirror matches — ideally with a buddy, but if no buddy is available, online play will have to do. (If I'm online, hit me up — I'd be happy to play with you.)

Get used to the new systems, figure out some new mixups, and find out what you can take from your ST practice and what you can't. For extra credit, go ahead and get started on Ryu's combo challenges (found in the Challenge mode) — it'll give you a few ideas as to how you can use the new systems to play Ryu in ways you couldn't have done in ST.

Conclusion: The Warrior's Path



Well, there you have it. You made it through the Educated Video Game Enthusiast's Fighting Game Primer. First off: Yeah, I didn't teach you how to play every fighting game, just *Street Fighter*. Sorry! But like I said in the beginning, understanding *Street Fighter*, and Ryu in particular, is a great way to learn how the genre as a whole works.

So. You're not a champion yet, but you're a darn sight better than you were when you started reading. Good job! As a reward, I'm going to tell you why I was completely serious when I wrote that fighting games "are quite possibly one of the finest activities a person could devote their time to."

If you ever beat *Street Fighter II* as a kid, you were probably surprised by Ryu's ending; you expected an awesome, dramatic cinematic clip of Ryu smashing Bison's face in, beating all the bad guys, and going home with the girl (Chun-Li). Instead, you saw a winner's podium with the first place spot empty — because Ryu was there for the fight itself, not the championship belt. The credits roll, Ryu walks off into the sunset with his laundry bag over his shoulder, Shoryukens a waterfall, and then you hear the Game Over sound and have to pay another quarter or two to keep playing.

I like to think that there is a reason that Ryu is the main character of the *Street Fighter II* game, even though Guile is essentially the main character of the *Street Fighter II* story. It's because the point of the game isn't to beat the bad guys. (In later versions of the game, the bad guys — Sagat, Balrog, Vega, and M. Bison — become playable characters, and their endings are about as sinister as you'd expect.) The point of the game isn't even to win first place in the *Street Fighter* tournament; Ryu leaves before anyone can give him props.

What matters to Ryu is that he tests himself against the best fighters he can find. If he wins, he searches for even better fighters. If he loses, he sharpens his technique and comes back for a rematch. For Ryu, concerns about good and evil, pride or honor, winning or losing, or any of that. It's just the fight itself, and how it sharpens his soul.

This is, I think, what *Street Fighter* is about as well. Yes, there are now huge tournaments with thousands of people playing and tens of thousands watching — and even some professional players. Yes, it feels bad

when you lose, and great when you win. But when it comes down to it, it's about the act of playing-fighting itself, and how that act enables us to connect with other people at a very intimate level, and about connecting with ourselves at a very intimate level.

Street Fighter teaches us to scrutinize who we are as people, how we think, what we're good and bad at. It gives us a place to readily solicit feedback, and immediate results that let us fine-tune our performance. It teaches us how to acquire new skills, and the value of practice and repetition and study. It teaches us to be in touch with our bodies, and to learn to use every single sensory input as a possible competitive advantage.

Street Fighter teaches us to turn those skills outward, as well. We learn how to read someone until we know them better than they know themselves, to understand their personality and their state of mind, their tolerance for risk and failure, their drive to improve and succeed. We learn how to teach someone a new skill, how to break down complicated concepts into smaller and smaller bite-sized ideas, how to introduce things slowly and gradually so as not to overwhelm. We learn that we are only as good as the people we surround ourselves with — which is one of those things that I think applies in life as a whole, not just video games. And we learn that we can only improve when we devote ourselves to improving those around us as well.

I am dead serious when I say that my longtime obsession with fighting games has been instrumental in developing the skills that led to whatever personal and professional success I've had. Fighting games taught me to work hard and push myself; to accept criticism as useful feedback and act upon it; to make friends that are willing to push me hard so I can push them harder. All of these skills, I think, are worth integrating into one's own character. And if you can do that by playing video games, well, that's pretty cool too.

Thanks for reading. I await your return, warrior.

Patrick Miller
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///RECOMMENDED READING

I'd be remiss if I didn't recommend some of the excellent fighting game learning resources out there. Here is a by-no-means exhaustive list of some of the best stuff I've read or watched in my own quest to be less bad at fighting games.

Seth Killian's [Domination 101](#) from the old days of SRK is very good, though parts of it can read a bit dated and rough around the edges compared to the relatively-clean fighting game writing out there these days. Shoutouts to Seth: He gave words to fighting game concepts and ideas that no one else was talking about at the time.

David Sirlin's [Playing to Win](#) is an excellent read (available as a free – donation preferred – digital read or a paid print version) on learning how to adopt a truly competitive mindset towards games (and skill development in general, really).

When it comes to more granular advice, read Majestros's [footsies handbook](#) – yes, all of it – to really sharpen up your game.

For budding fighting game technicians, James Chen's [systems guide for Capcom vs. SNK 2](#) is an excellent nuts-and-bolts dissection of a fighting game that really shows how hard people study these games.

Michael O'Reilly wrote an excellent post about [simplifying your “mental stack”](#) in regards to the need for reaction times in fighting games that pretty much everyone interested in competitive video games should read.

Lastly, the folks at Vesper Arcade have posted a whole bunch of in-depth, newbie-friendly video tutorials at their [YouTube channel](#).