Henry Craig

Professor Colby

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Introduction

The video game industry has a wide variety of fantasy and realistic games in terms of the setting they have to offer. Between each of these types of games, the world varies a large amount, from huge proportions to small proportions, and from realistic to unrealistic structures, characters, and weapons. But what makes *World of Warcraft's* environment, one of the most played MMORPG's (Massive Multiplayer Online Role Playing Game), so popular and enticing to play in? The purpose of this study was to find out just how disproportionate the aspects in WoW are to real life and what they achieve by doing this.

A previous study called "Behaviour, Realism and Immersion in Games", by Kevin Chang and Paul Cairns, tested if realism caused a barrier in the immersion of video games. After designing an experiment with fourteen participants, who had over ten years of experience with video games, they found that breaks in realism actually did not cause any walls to how immersed each gamer was. Most of the time, they didn't even consciously think about the realism but thought more about the details of the game itself. Even though their experiment found out "what", they didn't find out "why". That is also what I set out to find.

Methods

The first thing I wanted to do was find out exactly just how big and disproportionate everything is in WoW. Because it is a video game, and there is no included standard measurement system, I had to create my own. By using the race height off *Wowwiki.com*, I found that the playable race of humans in the game is about six feet tall, which is perfect because one of my level ninety characters is a human. For all of the smaller measurements (less than fifty feet), I lined my character up next to the object and used a transparent ruler to measure him and the object. Then I divided the object length by the length of my character, and multiplied by six (his in-game height), to correctly calculate the in-game height of the object. However, the massive structures were much more complicated to measure considering WoW's coding purposely hides the Z coordinate of your character's position in the world.

While exploring the continent of Pandaria, I found a stone column standing perfectly straight, and used my transparent ruler method to find the height of it, which turned out to be fifty-one feet. I originally tried to calculate how fast I fell from the column, but I encountered huge measurement errors due to a positive acceleration in falling speed over a large distance. In order to combat this, I developed a different way of measuring big objects by rising instead of falling. I summoned my flying griffon, and timed how long it took me to rise the fifty-one feet of the column. The griffon always moves the same speed, which eliminates all measurement errors between small and large structures. Because I was moving at a blazing four hundred and fifty-eight percent of regular ground speed, I had to test it about twenty-five times to make sure it was right. After averaging all twenty-five values, it turned out I was rising fifty-one feet in about .41 seconds, which is 124.4 feet per second. I had an accurate system where all I had to do was time how long it took me to rise up various objects. By rising instead of falling, it made the research more efficient by eliminating falling deaths.

I coded all of the measurements into the categories named "Structures, Characters, and Weapons". In the "Structures" category, I split up the data in two subcategories called "Standard Structures", common structures found more than once in the game, and "Special Structures", structures that are extremely unique and different in some way. In the "Characters" category, I split it up into two subcategories of "Standard Playable Races", the races available at the start of the game that people can choose to play as, and "Special Characters", which are important story-line characters and are often the commanders of capital cities. Lastly, for the "Weapons" section, I split it up into three subcategories. The first one is "Low Level" weapons, which averages four of varying weapons from vendors below level ten. The second subcategory called "High Level" includes the average of the last four seasons of max level PvP (player versus player) weapons (best weapons in the game at their time). The last subcategory of "Historical Medieval" weapons gives the average length of weapons actually used back in the day ("Medieval Weapon Index"). All of the values I obtained were compared to the adjacent subcategory, within each category.

After all of the quantitative data was obtained, I set out to interview four level ninety characters to find out why the unrealistic proportions in WoW's open world are so appealing . I used a set of four simple, open-ended questions I created to ask each individual player (see Table 1). Two of the interviews were done by typing back and forth and two were done over Ventrillo, a voice to voice communication system.

Table 1. Interview Process.

1. What are your expectations of physics and realism of video games? Does the immersion of the game overcome or fit into those expectations?
2. A large majority of the structures, characters, and weapons in WoW are blown extremely out of realistic boundaries, do you like this? Why?
3. How do the massive open areas inside of huge structures help or not help the immersion of the game?

4.	Why is a Tyrannical Gladiator's Great Sword bigger and more colorful than the great swords below level ten? Is this a common theme with all weapons in the game?
5.	Even though most of WoW's proportions are too big to be realistic, why do you think they chose to keep the playable races at a realistic scale?

Results

Structures

Table 2. Normal and Special Structure Height (ft)

Normal Structures (Avg. Height)		Special Structures	
Stormwind Door	13	Icecrown Citadel	5600
Stormwind Building	95	World Tree	4030
Alliance Inn	44	Wyrmrest Temple	1490
Orgrimmar Door	20	Mogu-shan Palace	1270
Orc Hut	37	Famous Panda Statues	870
Orgrimmar Building	105	Great Wall of Pandaria	260

Normal Structures:

The normal structures are all very large for being some of the smallest ones and most common in the game. The average Stormwind door is 13 feet and the average Orgrimmar door is 20 feet. The Stormwind door is smaller than the Orgrimmar door because the Horde races, especially the Tauren, tend to be taller than the Alliance races (see Table 3). When compared with similar real life structures, it becomes easy to see the difference. Based on several measurements of doors from *directdoors.com*, the size of an average modern door is only about 7 feet - the doors in the game just tower over this.

The average Stormwind and Orgrimmar buildings, most of which are either stores or houses, are just about 100 feet tall. A normal house or store does come anywhere close to this

height, because most houses are one story, and most of the time the city won't let you build a structure this tall without proper construction or business licenses.

Lastly the Orgrimmar hut, which is merely just a tent, is 37 feet tall, and the Alliance inn, a small living space, is 44 feet tall. The hut has only one room and one bed, and the Alliance inn only has a couple rooms and a couple beds. With 40 feet in the real world, one could make a four story house. The hut and inn have very little actual use in the game so buildings as insignificant as those being so large help show the proportions WoW is trying to achieve.

I asked Procaster, a level 90 Human Mage, "A large majority of the structures, characters, and weapons in WoW are blown extremely out of realistic boundaries, do you like this?" in order to find out why even the common structures are sized so much different than real life. He stated "Well yea of course. It allows you to immerse yourself into a world unlike our own. Nobody wants to play a game that's like real life when they could go outside to the same stuff but better quality." This comment helps show why WoW's environment is fun to play in because even the common things are different.

Special Structures:

Icecrown Citadel, which contains one of the end game raids, is by far the tallest structure in the game with a colossal height of 5600 feet. It is actually so tall that the game did not allow me to rise the last 100 feet of its spire because I hit their maximum playable height allotment. It is over twice as tall as the Burj Khalifa (2722 feet), the tallest building in the world, which could only be creating with intelligent mathematicians, architects, and machinery. WoW is staged in a medieval time where they still use swords, bows, and the occasional magic spell – they lack all capabilities of building something as tall and complex as Icecrown Citadel, making it

extraordinarily unrealistic. The inside is also proportional to how tall it is, with gigantic open spaces and hallways. To find out why this is done, I asked Erlic, a level 90 Human Warrior, "How do the massive open areas inside the huge structures help or not help the immersion of the game?" He replied "In end game raids, the only way the dynamics of the boss work are by having great open spaces where 25+ players can fit and all do their own part. It also allows the boss to be huge, which of course is more exciting. I just remember first seeing great Lord Marrowgar at the end of the insanely giant tunnel in Icecrown Citadel. It was the most intimidating, scary, and awesome thing at the same time." Having monumental structures like Icecrown Citadel simply make the game more fun and exciting. People are naturally afraid of things bigger than them, which is why Icecrown Citadel can provide an actual impact on your feelings, just like Erlic said.

The second largest structure in the game is the World Tree measuring at 4030 feet tall. That is 3650 taller than the largest tree in the world. It is just incomprehensible how something could naturally grow to be that tall. It would have to defy physics because the wind at the top would probably uproot it. Both Icecrown Citadel and the World Tree show the end of how unrealistic WoW is. Wyrmrest Temple, Mogu-shan Palace, the Famous Panda Statues, and the Great Wall of Pandaria are 1490, 1270, 870, and 260 feet tall, respectively. These structures are not in order of tallest structures in the game because there are countless ones below 1500 feet, but they simply reinforce the unrealistic aspects of the sizing of WoW. The Great Wall of China is only around 20 feet tall, but the Great Wall of Pandaria, a copy of China's wall, is 260 feet tall. The wall is proportional to the size of the creatures that could potentially attack it, just like the Great Wall of China is.

Relating to all of these unrealistic sizes, I asked Grimdotter, a level 90 Human Warlock, "What are your expectations of physics and realism of video games? Does the immersion of the game overcome or fit into those expectations?" He concluded "I think it depends what kind of game I'm playing. If I'm playing a first-person shooter game like *Call of Duty*, then I expect a little more realism from it than I do a fantasy game like WoW. I don't expect anything of WoW's realism or physics, I actually expect games like that to be unrealistic, and that's why probably why I like them so much." This is clear evidence that unrealistic games are fun simply because they are unrealistic. When people see things they do not normally see, combined with an integrated system of gameplay, they are drawn WoW.

Characters

Table 3. Standard and Special Character Height (ft)

Standard Playable Races	Avg. Height	Special Characters	Height
Goblin	3	------	------
Gnome	3.5	------	------
Human	6	King Varian (Human)	8.5
Tauren	7.5	Baine (Tauren)	10
Orc	6.5	Garrosh (Orc)	9
Undead	6	Sylvannas (Undead)	7
Dwarf	4.5	------	------
Night elf	7	------	------
Blood elf	6	Krasus (Blood elf)	13
Troll	7	------	------

Standard Playable Races:

The majority of the standard playable races (see Table 2) are right around the 6.5 foot mark, with the exception of the Goblins, Dwarves, and Gnomes, which, by lore of the game, are meant to be small. The human race is at an exact scale to real humans, which is one of the first realistic scales WoW has used. Procaster, a level 90 Human Mage, was asked "Even though most

of WoW's proportions are too big to be realistic, why do you think they chose to keep the playable races at a realistic scale?" He answered "Keeping the races at a real-world scale allows us to connect a little better. If our own character that we put ourselves into is completely different than us it's hard to stay attached - WoW involves quite a bit of emotional attachment and that's how they keep people playing the game." Even if most of the game is out of scale, maintaining the playable races at a realistic size still allows players to connect at an emotional level.

Special Characters:

Even though the playable races are all inside the realistic boundaries, power still has to be easily displayed. This is why the leaders, the special characters, of each major city are quite a bit taller than their corresponding race (see Table 3). A common occurrence has been that bigger things are more important and better, and there is no difference here. All of the special characters have millions of health points, and do ridiculous amounts of damage compared to players. Only groups of eighty or more players have a chance at killing them now.

Weapons

Table 4. Comparison of Weapon Length (ft)

Weapon	Avg. Length Great sword	Avg. Length Sword	Avg. Length Mace
Low Level (1-10)	5	2	1
High Level (90)	8	6	4
Historical Medieval	5	3	3-4

Low Level:

The low level weapons of the normal sword and mace are smaller than even the ones used back in the historical medieval times with lengths of 2 and 1 foot, respectively. The low level great sword matches the historical one at 5 feet, which makes sense because a sword can only be so small until it is actually considered a "great sword" (takes two hands to wield). Not only are the low level weapons small, they are incredible boring and thin, consisting of a couple simple shades of grey and are only a couple inches wide.

High Level and Historical Medieval:

When the high level weapons are compared to the low level and historical medieval ones, they are by far the biggest, which come to almost twice as long as the historical medieval weapons, excluding the mace, which is right around the same length as the historical medieval mace (see Table 4). In addition to the sword and great sword being massive, they are also extremely colorful and wide. Some of the swords get to widths around 7 inches, and when that is combined with the length, it makes them heavy weapons that are probably not possible to wield effectively. To answer the question of why weapons get so big at the higher levels, I asked Erlic, a level 90 Human Warrior, "Why is a Tyrannical Gladiator's Great Sword bigger and more colorful than the great swords below level ten? Is this a common theme with all weapons in the game?" He stated "It's bigger and cooler looking because it's significantly better. Nobody wants to work up to uninteresting weapons when it takes so long to get them. Yea this is definitely common with all weapons in the game." He finished by saying that "starting off the game with cool looking stuff would defeat the purpose of the game." Once again, things that are bigger are not only better, but seem to be "cooler" than small things to the players as well.

Discussion

The significance of this paper is simple – bigger is better. Bigger is more intimidating, exhilarating, and most importantly, different. The players in WoW do not want to play a game that too closely resembles our own unless it is a first-person shooter trying to mimic real warfare. It is important, however, that the size of the player's character remains in realistic boundaries or else the player will not be able to relate closely enough. When the races resemble our society (with the humans being an exact copy), it allows players to pretend or role-play like they are that character, and that they are actually in the big fantasy world of WoW. No player in any of the interviews I did said that they disliked the unrealistic qualities of WoW's setting, and is now easy to see why. I asked Longtrang, a level 90 Worgen Druid, "What are your expectations of physics and realism of video games? Does the immersion of the game overcome or fit into those expectations?" He stated "Well we all know a horse can't fly, but I think once you fully get into the game, reality and physics go out the window. In a game as detailed and as open as WoW, they can start to make you believe anything."

Some limitations and potential faults in this study lie in the measurements, but only with the medium sized objects. The smaller objects (less than 50 feet), were exact because I could use my ruler. The larger structures were also very close because of how long it took me to get to the top. However, the medium structures (more than 50 feet but less than 300 feet), that were too big to measure with a ruler, could potentially be off by several feet. My griffon was moving so fast that my readings were sometimes varying around twenty and thirty feet.

Another potential fault could be in the fact that I only interviewed WoW players. If they are playing WoW, it can be assumed that they like the environment and its unrealistic futures. Future research of unrealistic sizes in games could include a study of a broad range of games that also includes realistic games such as *Call of Duty,* which was mentioned before in one of the

interviews, to see why those players like realistic proportions, and if they dislike unrealistic

proportions.

Works Cited

DirectDoors.com. N.p., n.d. Web. 25 May 2013

Erlic, Lvl 90, Grimdotter, Lvl 90, Longtrang, Lvl 90, and Procaster, Lvl 90. Online Interview. 22

    May 2013.

"Height." *Wowwiki*. Wikia, n.d. Web. 20 May 2013.

Kevin Cheng and Paul A. Cairns. 2005. Behaviour, realism and immersion in games. In CHI '05

    Extended Abstracts on Human Factors in Computing Systems (CHI EA '05). ACM, New

    York, NY, USA, 1272-1275. DOI=10.1145/1056808.1056894

    http://doi.acm.org/10.1145/1056808.1056894

"Medieval Weapon Index." *Angelfire.com*. N.p., n.d. Web. 20 May 2013.