

Perpetuated gender differences in Stardew Valley

Introduction

Stardew Valley is a farming simulator, role-playing game (RPG) created in 2016. The playable character (PC) finds themselves the inheritor of their grandfather's run-down farm in Stardew Valley. Escaping their city life, they till the soil to create the farm and life of their dreams, all while interacting with the townsfolk in the local village. Stardew Valley has been praised for its inclusion of same-sex relationship options between the PCs and NPCs (Gayming 2020).

At the start of the game, the player can choose the gender of their player character. This affects some of the NPC dialogue. This report asks whether the content of these differences perpetuate (align with) or subvert gendered stereotypes.

Methods

104 lines from *Stardew Valley* were identified that differ according to the gender of the player character. Each line was coded by hand according to whether it perpetuated or subverted a gendered stereotype. If there were differences that did not obviously relate to gendered stereotypes, these were coded as "neutral". These include differences due to grammatical elements ("he"/"she"), forms of address ("lad"/"lass"), and other neutral phrases ("fine young woman"/ "good guy"). During coding, a fourth category of gender-specific flirting was identified.

Results

```
d = read.csv("../data/StardewValley/StardewValley/StardewValleyGenderDiff.csv",
             stringsAsFactors = F)
```

That there is no significant difference in the amount of dialogue to male and female PCs (measured in text character length):

```
t.test(d$dialogueToMalePC.length, d$dialogueToFemalePC.length)

##
## Welch Two Sample t-test
##
## data: d$dialogueToMalePC.length and d$dialogueToFemalePC.length
## t = 0.027298, df = 205.73, p-value = 0.9782
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
## -8.903107 9.153107
## sample estimates:
## mean of x mean of y
## 54.26923 54.14423
```

The results of stereotype coding were as follows:

```
cbind(Number = table(d$Verdict),
       Percentage = paste(round(prop.table(table(d$Verdict))*100,2),"%"))

##               Number Percentage
## ?                "1"    "0.96 %"
## Gender-specific flirting "15"  "14.42 %"
```

## Mixed	"1"	"0.96 %"
## Neutral	"62"	"59.62 %"
## Perpetuate	"25"	"24.04 %"

59.62% of cases were coded as 'neutral' (see appendix). 24.04% of cases perpetuated gendered stereotypes. Below are some specific examples.

Examples 1 and 2 perpetuate stereotypes of gendered food, where certain foods are seen as "for" certain genders (see e.g. McPhail et al., 2012). This feeds into notions of diet and weight loss that are seen as essential to feminine beauty ideals (e.g. Malkin et al., 1999).

Example 1 occurs while at a bar with the character Elliot:

Elliot with male PC: Bartender! Two of your finest ales, please!

Elliot with female PC: Bartender! Fetch me your finest ale. And bring some wine for the lady!

These gendered drink choices perpetuate stereotypes associating ale with men and wine with women.

Example 2 occurs when at a restaurant. The PC does not get to choose their meal (the "@" symbol indicates that the player character's name is used)

To male PC: I've got a linguini with mushroom cream sauce for Mr. @.

To female PC: I've got a kale and walnut salad for the lady.

The salad is a "light" food associated with dieting, while the pasta with cream sauce is a high-calorie food, which perpetuate gendered food stereotypes.

Examples are not limited to food and drink. For instance, Example 3 is spoken by Abigail in the context of the player character playing a video game:

To male PC: Well thanks, @. You seem to really know your way around a joystick, huh? I guess that makes sense.

To female PC: Thanks, @. I didn't think you'd know how to work a joystick so well! But it seems you're experienced.

Here the dialogue reinforces the idea that men play video games and women do not. This does not reflect the real world, where there are roughly equal numbers of male and female video game players (ESA, 2021; ISFE, 2021; Nico Partners, 2021; Newzoo, 2019; Pandurov, 2021; Korea Creative Content Agency, 2020).

There were two cases where gender stereotypes are mildly subverted:

To male PC: "I'd ask you to throw the ball around, but you don't really seem like the sports type."

To female PC: "If you weren't a girl I'd ask you to play catch."

This is a mild subversion of a male stereotype ('men like sports'), although note that there's nothing gendered in the language targeted at the male, which treats the PC just like a person. There is, however, a perpetuation of negative female stereotype in the dialogue to the female NPC ('throw like a girl' - trope: "Gendered Insult").

The second case refers to the player character's fast drinking (of alcohol):

To male PC: "Heh... fast drinker, huh? Man after my own heart."

To female PC: "Heh... fast drinker, huh? Woman after my own heart."

The text is nearly identical for both genders. However, there is mild subversion here as the NPC treats fast drinking as equally admirable for both genders, while alcohol consumption is often seen as a masculine trope (e.g. De Visser & McDonnell, 2011).

There were no cases of more significant subversion of gendered stereotypes.

Below is a table with a comment on each case of perpetuation:

```
knitr::kable(d[d$Verdict=="Perpetuate",
  c("dialogueToMalePC", "dialogueToFemalePC", "Comment")],
  row.names = F, col.names = c("to Male", "to Female", "Comment"))
```

to Male	to Female	Comment
Hey, you must be getting pretty strong working on that farm all day.	Hey, you must be getting pretty fit working on that farm all day.	Men are strong, women are fit.
We'd better head back before the southern wind picks up.	Uh oh... The vibration from your body has caught the attention of a Crimsonfish... We'd better get out of here.	Possible trope: https://tvtropes.org/pmwiki/pmwiki.php/Main/MonsterMisogyny . Certainly fits the stereotype that women's bodies are distractions/encourage negative behaviour.
@'s a better man than you in every respect!	@'s a better person than you in every respect!	Presumably the person being compared to is also a man, but it's interesting that they've defaulted to a 'better man' when possible, rather than just using 'better person' for both. It's possible that they wrote the dialogue for a male PC first (Male as Default) and then amended for a female PC.
Hey... Maybe I'll let you ride sometime, if you want.	Hey... maybe I'll take you for a ride some day.	Men Act, Women Are. The male character is permitted to 'ride', the female character is offered a more passive role.
Don't worry, I'll make sure to show you the ropes before I let you do anything dangerous.	There's no need to worry... I'll make sure you're safe.	Need to protect the women! (trope: Stay in the Kitchen)
Bartender! Two of your finest ales, please!	Bartender! Fetch me your finest ale. And bring some wine for the lady!	Ale for boys, wine for girls. Classic stereotype.
The girls all seem to like you, @...	You're a girl, @...	All girls want the same thing. Features in both sets of dialogue.
I've got a linguini with mushroom cream sauce for Mr. @.	I've got a kale and walnut salad for the lady.	Calorific pasta for the bloke, and a nice 'healthy' salad for the lady (gendered food associations).
Well thanks, @. You seem to really know your way around a joystick, huh? I guess that makes sense.	Thanks, @. I didn't think you'd know how to work a joystick so well! But it seems you're experienced.	Men Act, Women Are. Tropey assumption that only men are gamers.
How can two men get married? It's unnatural... Hmmph. I guess I'm just old fashioned ...	You're part of the family, now. I'm glad that my grandson found such a nice wife.	More homophobia. Note that only the woman is part of the family.
I'll admit, I thought it was... strange... for two men to be together. But you're such a nice young man, and I know you two are in love... I've changed my mind.	You're part of the family, now... and I couldn't be more proud.	More homophobia. Note that only the woman is part of the family.

to Male	to Female	Comment
Nice shoes.	Nice makeup.	Women wear shoes too. But they definitely wear makeup! (Tertiary Sexual Characteristics)
Are those made out of plastic?	Or wait... Are you even wearing any?	Follow on from the above.
@, you look rugged today. I like it.	@, you look pretty today.	Gendered positive characteristics: rugged man, pretty woman.
Look at us, with our little farm. We make a cute couple.	Hey. Maybe it's the golden light, but you look beautiful today.	This is gendered-specific flirting as well, but note female = beautiful association again.
You're very handsome... have I told you that?	You're very beautiful... have I told you that?	Gendered positive characteristics: handsome man, pretty woman.
My skill with words is unmatched, yet I can't find the way to properly describe your allure.	My skill with words is unmatched, yet I can't find the way to properly describe your beauty.	Again woman = beauty.
From the brightest winter star, to the shimmer of an iridium vein... nothing can compare to my wonderful man.	From the brightest winter star, to the fragrant fairy rose... nothing can compare with your captivating beauty.	This is like a man v woman deodorant ad: METAL for men FLOWERS for women (with heavy metal music in the former, and a woman diving into a waterfall for the latter). Also, beauty = woman.
Wow, you look really handsome today! Did you shave? Your jawline is perfect.	Your feminine allure is irresistible today. I can't keep my eyes off you.	Note that men can be rugged, handsome, alluring, and wonderful. But the lady's still just beautiful. Female PC gets to be alluring now! Man = handsome. Sharp jaw.
Wow, you look really handsome today! Did you shave?	Oh, my... you look beautiful today.	Woman = beautiful, man = handsome. Shaving again!
Wow, you look full of energy today!	You look beautiful today.	Man is full of energy, woman is beautiful again.
Wow, you look really handsome today! Did you shave?	Wow, you look beautiful today.	Man = handsome, woman = beautiful.
	Did you do something different with your hair?	
Wow, you look really handsome today! Did you do something with your hair?	Wow, you look stunning today.	Upgraded to stunning! Still, it's a synonym for beautiful.
	Did you do something new with your hair?	
Hey buddy. You look like you're full of energy today!	@. Um... I just wanted to say... You look nice today.	Man = full of energy, woman = looks nice. In keeping with Men Act, Woman Are!
I like your new boots!	Your hair looks nice today.	Girly hair often = tertiary sex characteristic.

Gender differences in flirting and romance

14.42% of cases differed due to gender specific flirting (see appendix). Some of these examples did display gendered attitudes, for example:

To a male PC: Hey, farmer guy. You look a little burnt.

To a female PC: Hey Farmer girl. You've got a nice tan going.

The male PC's tan is treated as a possible medical condition, while the female PC's tan is treated as a beauty asset. This perpetuates gendered norms of behaviour related to tanning and beauty (e.g. Cox et al., 2009).

More generally, we note that a female PC is repeatedly described as beautiful, while the male gets praised for a bigger range of attributes (rugged, handsome, full of energy etc.).

We note that several differences relate to heteronormativity. When the player romances Alex (a male character), the dialogue differs, with dialogue to a male PC hinting at internalised homophobia:

To male PC: I kept telling myself 'You can't have these kinds of feelings for another guy'.

To female PC: Normally, when I have a crush on someone, the feeling goes away pretty quick...

Similarly, female-female attraction is called out specifically when romancing Abigail (a female NPC):

To male PC: You don't have to say anything right now. Let's just stay here for a while...

To female PC: I didn't know I felt this way about other girls... until I met you.

It also appears that a male PC romancing Elliott requires comment:

```
{"PC": "I'm happy."},
{"CHOICE": [
  [
    {"STATUS": "Player is male"},
    {"Elliott": "... I was worried you might not feel this way about another man. "}],
  [
    {"STATUS": "Player is female"},
    {"Elliott": "So am I."}]]}
```

And for Sebastian:

To male PC: Um... I've never... felt anything like this with another guy before... But you're different.

To female PC: I don't usually bring girls to this place... In fact, you're the only one.

Homophobic views are also expressed by other NPCs. For example, if the PC romances Alex, the lines below are spoken by George, Alex's grandfather:

To male PC: How can two men get married? It's unnatural... Hmmph. I guess I'm just old fashioned...

To female PC: You're part of the family, now. I'm glad that my grandson found such a nice wife.

Including narratives of sexual discovery does not perpetuate stereotypes in itself. And we also note that George changes their mind ("I'll admit, I thought it was... strange... for two men to be together. But you're such a nice young man, and I know you two are in love... I've changed my mind."). However, heterosexuality is consistently portrayed as the non-marked norm.

Letters

The PC in Stardew Valley can receive written letters. While these are not dialogue, we note that there are differences based on gender. For example, at the beginning of the game, a male PC will receive a letter from "Mom":

Dear @, How are you doing, sweetie? I've missed you so much since you left. I hope the farming life is everything you hoped for. Love, Mom. PS, I sent your favorite cookies.

If the PC is female, they will instead receive a letter from "Dad":

Dear @, Have you settled into your new life yet? I can't believe you're all grown up now ... Time sure flies. Now that you're gone I have all this extra money laying around, so I included a little gift. Love, Dad.

The cookies from Mom have an in-game value of 140g ('g' being short for 'gold', or the in-game currency), while Dad provides 500g in cash. The difference in value leads to many speedrunners choosing a female PC (e.g. this advice https://www.speedrun.com/stardew_valley/guide/ldpiz). We note that this difference broadly aligns with tropes that females provide love while males provide material support.

Conclusion

In many ways, Stardew Valley is a positive, inclusive game. There are no mechanical differences when choosing the gender of the PC, the dialogue is 46% female overall (relatively balanced in comparison to many others), and there are no significant differences in the amount of dialogue spoken to male and female PCs. Furthermore, the option for same-sex marriages and relationships has been in the game since its inception. However, the content of some dialogue does perpetuate gender stereotypes, particularly related to food and beauty standards. The perpetuation of the idea that video games are a masculine hobby is particularly disappointing for a video game in a genre that has more female players than male (around 69% female players according to this study <https://quanticfoundry.com/2017/01/19/female-gamers-by-genre/>).

The portrayal of stereotypes in fiction is not necessarily harmful. For example, some of the sexist attitudes of Alex are clearly part of his personality and not necessarily praised. However, there were no clear cases of subverting of gender stereotypes, and little push-back on the idea that gendered attitudes are normal, default attitudes. Interactive fictional media possesses the ability to be both aspirational and subversive, and could strive to be more inclusive.

References

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Appendix

Cases of Neutral differences:

```
knitr::kable(d[d$Verdict=="Neutral",  
              c("dialogueToMalePC","dialogueToFemalePC")],  
            row.names = F)
```

dialogueToMalePC	dialogueToFemalePC
You're an interesting guy, @. I'm glad you moved here.	You're an interesting lady, @. I'm glad you moved here.
Hey farm guy, I've got a question for you.	Hey Farm girl, I've got a question for you.
That's insane. You're just jealous that I'm talented and popular and you're not.	That's ridiculous. You're just jealous that I'm way more popular than you'll ever be, freak.
Hey, I want to ask you something.	Hey, can I ask you something?
Do you think the ladies like my haircut?	What do you think about my haircut?
Oh, hello my dear. I think of you as my own grandson now.	Oh, hello my hear. I think of you as my own grand-daughter now.
Oh! You brought the cave carrot! Thank you so much, Mr. @.	Oh! You brought the cave carrot! Thank you so much, Ms. @.
I'm glad.	Is that embarrassing to say?
Ahoy there, son.	Ahoy there, miss.
Oh, good morning Mr. @!	Oh, good morning Ms. @!
Good morning, Mr. @!	Good Morning, Ms. @!
My dear boy...	My dearest grand-daughter...
It's been many years since we last spoke. You were just a little boy... Do you remember?	It's been many years since we last spoke. You were just a little girl... Do you remember?
My dear boy...	My dearest grand-daughter...
Well, he'll make it... but that was pretty violent, @.	She's fine... but that was pretty violent, @.
Well, he's fine... but that was pretty violent, @.	She's fine... but that was pretty violent, @.
He has first-hand experience living in the countryside... so he knows all about the valley's 'natural resources'!	She has first-hand experience living in the countryside... so she knows all about the valley's 'natural resources'!
Mr. @, are you going to marry Miss Penny?	Ms. @... Um, do you have a boyfriend?
Vincent! Behave yourself. Mr. @ makes his living working on the farm! It's not a playground.	Vincent! Behave yourself. Ms. @ makes her living working on the farm! It's not a playground.
Heh... fast drinker, huh? Man after my own heart.	Heh... fast drinker, huh? Woman after my own heart.
Oh, it's that new farm boy.	Oh, it's that new girl from the farm.
He has a name, you know.	She has a name, you know.
Thanks, young man.	Thanks, miss.
You've been very nice to me, young man. I appreciate that.	You've been really nice to me, miss. I appreciate it.
Not so fast! I'd like to get a second opinion from this young man.	Not so fast! I'd like to get a second opinion from this young lady.
He was always nagging me to go back to school and study business or medicine... something with a lot of money in it.	She was always nagging me to go back to school and study business or medicine... something with a lot of money in it.
Oh, Hello there, buddy.	Hi, @.
Got any tips?	What advice can you give me?
... and a grilled steak for Alex.	And a grilled steak for the gentleman.
He's right... That's what happened.	She's right... that's what happened.
What!? He's lying!	What!? She's lying!
Huh? What did you say to him, Dad?	Huh? What did you say to her, Dad?
@, I'm sorry I mistrusted you. You're a good guy.	@, I'm sorry I mistrusted you. You're a fine young woman.
Wow... I didn't think he was that dense.	Wow... I didn't think she was that dense.

dialogueToMalePC	dialogueToFemalePC
But you should really be clapping for @! Without his help we'd never have decided what kind of music to make in the first place!	But you should really be clapping for @! Without her help we would've never decided what kind of music to make in the first place!
But you should really be clapping for @! Without his help we'd never have decided what kind of music to make in the first place!	But you should really be clapping for @! Without her help we would've never decided what kind of music to make in the first place!
But you should really be clapping for @! Without his help we'd never have decided what kind of music to make in the first place!	But you should really be clapping for @! Without her help we would've never decided what kind of music to make in the first place!
But you should really be clapping for @! Without his help we'd never have decided what kind of music to make in the first place!	But you should really be clapping for @! Without her help we would've never decided what kind of music to make in the first place!
He gave me the idea for this show and the courage to go through with it. I know that sounds cheesy, but it's true.	She gave me the idea for this show and the courage to go through with it. I know that sounds cheesy, but it's true.
There he is, everyone! Look sharp!	There she is, everyone! Look sharp!
Ah, you turned up at the right moment, son.	Ah, you turned up at the right moment, miss.
He's a nice young man...	She's a nice young lady...
I can't talk right now, young man.	I can't talk right now, miss.
Take care, son.	Take care, hun.
Oh... you're that new farmer boy, aren't you?	Oh... You're that new farmer girl, or whatever. Aren't you?
Hmm... If it weren't for those horrendous clothes you might actually be cute.	Hmm... If it weren't for those horrendous clothes you might actually be pretty... Actually, nevermind.
Hi, Mr. @.	Hi, Ms. @.
You're always so nice to me, Mr. @	You're always so nice to me, Ms. @.
I love animals, Mr. @. If you treat yours well I'm sure we'll become good friends!	I just love animals, Ms. @. Treat them kindly and we'll become friends, I'm sure!
Ahh... there's nothing like a good night's sleep next to my husband!	Ahh... there's nothing like a good night's sleep next to my wife!
Good evening. Did you have a productive day, @?	Good evening. Did you have a productive day, my dear?
You look a little soggy, hun. Why don't you warm yourself by the fire?	You look a little soggy, dear. Why don't you warm yourself by the fire?
For a while there I was considering building a robotic husband. But you're a lot more fun!	For a while there I was considering building a robotic wife. But you're a lot more fun!
Oh, it's Mr. @.	Oh it's Miss @.
Hey, it's Mr. @, the new farmer! I'm Pierre, owner of the local general store.	Hey, it's Ms. @, the new farmer! I'm Pierre, owner of the local general store.
Hello, er... my son?	Hello, er... daughter?
I really do appreciate your business, Mr. @. I've been having a harder and harder time turning a decent profit.	I really do appreciate your business, Ms. @. I've been having a harder and harder time turning a decent profit.
Okay, Dad...	Okay, Mom...
Can you keep a secret, mister?	Can you keep a secret, miss?
Hi there, mister!	Hi there, miss.
Hi Uncle @!	Hi Auntie @!
Ahoy there, son.	Ahoy there, lass.

Cases of Gender-specific flirting:

```
knitr::kable(d[d$Verdict=="Gender-specific flirting",
               c("dialogueToMalePC", "dialogueToFemalePC")],
             row.names = F)
```


dialogueToMalePC	dialogueToFemalePC
Oh, hey. So you're the new guy, huh? Cool.	Hey, you're the new girl, huh? I think we're going to get along great. I'm Alex.
<i>sigh</i> ... I wish there were more girls in this town, know what I mean?	Hey, do you wanna hang out with me at the beach some time? Do you have a bikini?
Hey, what's up farmer guy?	Hey, it's farm girl. Did you get new pants? You're doing something right.
Hi @. You look sporty today.	Hey @. Did you do something different with your hair? Something keeps grabbing my attention.
Hey, farmer guy. You look a little burnt.	Hey Farmer girl. You've got a nice tan going. I'm glad.
That's fine with me. You're a cool guy.	You look so beautiful tonight... I... <i>gasp</i>
...I'll always remember this night.	So am I.
... I was worried you might not feel this way about another man.	I didn't know I felt this way about other girls... until I met you.
You don't have to say anything right now. Let's just stay here for a while...	I don't usually bring girls to this place... In fact, you're the only one.
Um... I've never... felt anything like this with another guy before... But you're different.	When I first met you, I thought you were really cute.
Well... when we first met, I was instantly drawn to you. It was confusing... I'd never felt that way about anyone.	Normally, when I have a crush on someone, the feeling goes away pretty quick...
I kept telling myself 'You can't have these kinds of feelings for another guy'.	...But with you, it kept growing.
...But my heart was telling me something else.	Have you been working hard? You look cute when you're a little exhausted.
Hey! You look like you've been hard at work. Can I help you relax?	You're a pretty gal. What 're you wastin' your time talkin' to someone like me for?
You're a fine lookin' young man. Why're you wastin' your time talkin' to an old girl like me?	

Uncoded case. This is a different reaction (mock disbelief to the male? I'm not sure without context; earnest acceptance to the female), but it's not obviously tropey.

To male PC: Get out!

To female PC: That's good to know.