Hi, everyone. [BACKGROUND] Thanks for coming.

I'm Glenn Geher, the Director of Evolutionary Studies.

I am thrilled to be introducing

Dr. Victoria Ingalls today,

who is the first official speaker in

the 2011 EvoS Seminar Series.

I made a brief little PowerPoint

myself because I was so excited about the introduction.

Dr. Ingalls' talk is going to be focusing on

her evolutionary analysis

of children's fantasy literature.

What's fantastic about her research,

in my mind, it's Evolutionary Studies Program

at its best.

A trained biologist with a PhD

in Zoology from the University of Massachusetts.

She has done extensive research on various species,

largely on a variety of bird species.

Because of her deep understanding

of evolution and biological principles,

has recently branched out to

study human behavior as well.

She does it in a way that is true to

the animal behavior and

evolutionist origins in her background.

So she will hare that with us today.

The work that she has done recently has
integrated literary studies, psychology, and evolutionary biology in a really interesting and seamless way to provide significant insights into who we are. When I was reading her article earlier this week, I got so excited because I found myself quite educated by the process. One of the core things we believe about the evolutionary studies program is that evolutionary theory and its applications are highly relevant to everyday life. People often think that's not the case, which is a concern regarding evolution education. When I was reading her stuff, I thought to myself, my goodness, it is highly relevant because she's talking about sex differences, male-female differences in the creation of heroes in literature. I happen to know two young aspiring authors who vary in sex. So there's Megan looking like a Hollywood star right there and there's Andrew on the ski slopes. They are both trying to publish some of their own work. Here's Andrew's book, I told him I'd put it up on a slide briefly.
[LAUGHTER] But when I was reading Dr. Ingalls' work, I was like, my goodness, the insights I was getting into my own kids was outstanding. So if you've read her work, which I know students in the EvoS Seminar have, she talks about the hero creation of voice. This is Andrew created Super A, who looks a little bit like Andrew himself. He's got a cap and all that. When I read through the details of what a male creates in a fictional protagonist, I was very educated in the nature of my boy. I'll tell you that Megan's also something of an author with her friend. This is the cover of Groda's childhood. This is one of the pictures by her friend Forrest in her class, of Groda, who is a mixture of Grover and Yoda. [LAUGHTER] It's a fantastic book that will be published soon. He's also a fictional character and his experiences and his world match very much the things that female authors tend to create in their literature. So I felt like this was, at least for me, a moment of epiphany,
seeing how highly relevant
evolution can be in understanding your own world.
Dr. Ingalls is a master at bringing that to us.
Please join me in welcoming Dr. Victoria Ingalls.
[APPLAUSE].
Thank you so much for inviting me.
It's very, very exciting to be
here and to be in front of people
who think my work might be of interest and use to them,
especially since I am a biologist and
sometimes I think the organic chemists
are walking around going, what are you doing?
But here I am, and I'm going to
talk today about, obviously,
sex differences in hero creation
associate biological analysis
using children's fantasy literature.
Now, before I get right into the study,
a lot of people want to know how did you get here?
Much to the surprise of my own students,
and I want to say hi to my students,
they're sitting right there.
Much of a surprise of my own students after
eight or 10 hours of thinking
and breathing biology every day,
I don't go home and turn on the Discover Channel.
Although they run up to me at the end
of the next day and did you see on Discover?
I'm like, no, no, no, I don't watch Discovery at home.
No, I was much more likely to go home and turn on
some escapist television like
Xena Warrior Princess or Buffy the Vampire Slayer,
appearing in the 1990s. Because I watched these shows every once in a while,
I'd be reading things and I don't know,
like the TV guide or some thing,
about finally powerful,
heroic women to be role models for our daughters.
I said, "Well, hey, wait a minute,
these two women were created by men."
So the question becomes,
okay, does that matter?
Does it matter that the strong female heroes
we see in the media are being created by men?
But that did not make and different.
I'm going to give you
just the super-duper briefest history.
The beginning of modern superheroes is
generally dated to Superman in 1938.
Superman was developed conceptually by Jerry Siegel.
Now he was a young adult or a teenager,
depending on how you want to look at it,
when he develops the concept of this ultra powerful guy.
It's also psychologically very interesting to note
that Jerry Siegel was the child of immigrant parents.  
So his parents had not been born  
in the United States, but he was,  
and he creates an alien who's super powerful and  
of great value to his adopted culture.  
After Superman, of course, we have Batman.  
Now Batman isn't technically  
a superhero in the sense that  
he doesn't have superpowers,  
but he does things that no normal person can do.  
I actually coined my own little term,  
I refer to him as an ultra action hero.  
So I have superheroes and ultra action heroes,  
people who are technically human,  
but they can do things no human person can do.  
So that's them.  
Are there any female superheroes?  
Well, thinking about an questionnaire for your students,  
which I've been known to do,  
and say, could you please list  
all the fictional female heroes you can think of?  
The grand majority of them will  
come up with Wonder Woman.  
She is of course, probably the most recognized  
female superhero ever created,  
1941, not much after Superman.  
But she is of course created by a man.
Now, the interesting thing is
the man who creates Wonder Woman is
a middle aged PhD in Psychology from Harvard.
He believes that women are better than man.
In fact, he likes women so much,
he has his wife with two kids and
his assistant lover with two kids,
and they all live in a house together.
He constructs Wonder Woman,
possibly with their input,
but certainly she is credited to him.
When we look at Wonder Woman,
she's not a human being,
she's also an alien.
In fact, the queen of the Amazons molds clay and then
the goddess Aphrodite breathes
life into the clay, and that's Diana.
Diana is Wonder Woman.
So she's not, she has not even got a father.
She's not a human.
She has an invisible plane,
she can contact telepathically.
She has her golden lasso.
And if you wrap it around somebody,
they have to do what you say and tell you the truth.
Interesting little tidbit,
Marston invented the lie detector.
Along with some other items here, she has her steel bracelets and she's reflecting bullets off her steel bracelets. In the origin story of Wonder Woman, she's with the Amazons. This pilot falls out of the sky, she rescues him, nurses him back to health, falls in love with him and follows him to the United States. We might expect that culturally males might not create strong female heroes. Here I got a lot of my beginning information from Trina Robbins, The Great Women Superheroes. She quotes, Marston as saying, "If a woman hero were stronger than a man, she would be even less appealing. Boys wouldn't stand for that. They'd resent the strong gal superiority." So you might not expect men to make strong women characters. Correspondingly, you might expect strong female heroes from women. The same area of the book she quotes Gloria Steinem saying, "When commenting on Wonder Woman stories, describe the relief,
the sweet vengeance, the toe wrinkling
pleasure of reading about a woman who was strong,
beautiful, courageous, and a fighter for social justice."

In fact, Gloria Steinem likes Wonder Woman so much that she puts her on the cover of the first issue of Ms. Magazine.

So if these observations are true that you wouldn't really expect men to be creating strong woman fictional heroes and women should, wouldn't we expect female superheroes more often to be created by women than men.

Now here's Trina Robbins other book. This is The Great Women Cartoonist.

I put this up, simply to make the point that there have always been women cartoonists.

It's true that men have predominated in the comic book industry, but it doesn't mean that women weren't there.

I wanted to compare female superheroes or ultra action heroes created by women to those created by men.

Now I put up here Emma Peel, I had to put her up.

She was my favorite from my childhood. She was smart, she was cool.

She could fight.

She knew what was going on,
and she was married.

She had it all. So by the way created by man.

I wanted to compare those created by women and men.

My problem was that almost all female superheroes I could find were created by men and they included Sheena, Phantom Lady, Mary Marvel, Black Canary, Supergirl, of course, the Fantastic Four including the Invisible Girl, the original women of the X-Men, Valkyrie, Mighty Isis, Electra Woman and Dyna Girl, the Bionic Woman an off shot of the giant man, Spider Woman, She-Hulk. Electra, Femforce a whole bunch of women, Lara Croft, Tomb Raider, Witchblade, The Dark Angel, Kim Possible and yes, even the Power Puff Girls were all created by men.

I'm going through, and it's men, men, men.

Could I find any female superheroes created by women?

Well, the first one is 1941. You've all heard of Miss Fury, right? On the tip of your tongue.

Miss Fury actually lasts a really long time. She lasts something like 8 or 12 years. She's created by a June Mills who changes the name to Tarpe to be less obvious that she's a female. Miss Fury is really an ultra action heroine.
She receives from her explorer uncle in Africa a panther outfit that she puts on to go to a masquerade ball. It turns out that it's cursed and it propels her to all kinds of adventures. But as you can see, she doesn't actually have superpowers, but she does things no normal person could do. Here she is swinging through the sky. She's knocking people on their heads. She's deflecting bullets. More than 40 years later, we get the Power Pack for superpower children, written by a woman. Then we have, in 1991, Japanese anime, Sailor Moon, a whole bunch of females with superpowers. You're laughing, so maybe you know more about them than I do. [LAUGHTER] In 1998, on television, we have the Halliwell sisters of Charmed. Three witches, all with different super powers. One can freeze time, and one has telekinesis, and one has precognition or something. Then in 2004, we have a new Spider-Woman created by a woman Aranya.
This is not really part of the talk, but I thought it was interesting that as Aranya, who gets her superpowers, magically or mystically, they're given to her. As she learns how to use them, she can generate around herself this creepy and scary, hard exoskeleton, which was a real difference from the female She-Hulk created by a man. If you know what the real Hulk look like, I didn't exactly accept She-Hulk to look like that. But there you are. I'm going through all the literature, the Action Chicks, the Wonder Woman, The Great Women Superheroes, Athena's Daughters, The Modern Amazons, any book I could find. I finally had to rely on Wikipedia, which I don't believe in relying on for obvious reasons. But at least they had a list of female superheroes, which was more than 300 long. Of those 300, so far I've found five, which means approximately two percent of female superheroes are being credit as created without male intervention, is about two percent. But females do create heroes.
We know they help shape heroes once they're created.
It seemed to me that they're not
creating females with superpowers.
Why might women be less inclined to
imagine and create females
with extraordinary physical power?
Here comes the biology. Get ready.
I'm a sociobiologist, I'm an animal behaviorist.
I believe, whether you like it or not,
you are an animal too.
From a biologist's point of view,
if you're not an animal,
you've got to be a plant or fungus,
and usually my students choose animal at that point.
It's a discipline that uses evolutionary theory
as a foundation for the study of social behavior.
This is taken from Alcock's Animal Behavior textbook.
This means that the social behavior
of all animals, including humans.
As a biologist, I'm going to use the same principles,
by the way, I teach physiology too,
I'm going to use the same principles
I use for physiology,
like how I study the heart or how I understand how
the brain works, to study behavior.
According to sociobiology, human,
male and female minds have evolved
differences because they've been
shaped by different pressures.
Pressures that would have been present in
the ancestral environment and
the environment before our modern day,
as we're evolving into modern humans.
So according to biologists,
I always tell my students if they really want to annoy
their philosophy professor, take this with you.
What's the goal of life?
The goal of life is to pass on as
many copies of your genes as you possibly can.
That is the biological goal of life.
So we're just going to think about
chimps for just a minute.
Just think chimps now physiologically,
a female chimp is,
has certain similarities with
a female human in that she gets pregnant,
she's pregnant for the better part of
a year, she'll give birth,
she'll nurse the baby for
a while and it'll be a few years in between births.
If you study pretechnological societies, like the !Kung,
this is a pattern you also
see in those kinds of societies societies where you
have about four or five years
in between births for females.

Well, now, let's think about a female chimpanzee who's fertile and a male chimpanzee who's fertile. We're going to compare them.

Let's imagine that the male gets to mate with five females in a very short period of time.

Next year, he might actually get to have five babies.

If the female who's fertile gets to mate with five males, she still only gets one baby.

That's the fundamental difference between males and females.

If you've had these courses, this is referred to as females having higher parental investment than males because they put in more energy per baby.

As a result, because of that, we can ask the question, what help a male get a lot of mates?

The answer is, if he's powerful, he can either keep other males away from the females so he gets a whole bunch or the females actually might prefer to mate with this great, big, powerful male because she would like to have a son who's like that to or healthy daughters.

Power for male is likely to translate into lots of little offspring.
However, we could ask the question, what's going to tend to help a female rise for fitness or the number of genes she passes into the next generation? A little bit of this might be due to the fact that females may be helping their children or their families because they have better information about who they're related to. Let's face it, I give birth to a baby. I know I'm related to it. But if I'm a male and my female that I've mated with gives birth to a baby. Has she mated with anybody else? Do I know she's mated with anybody else? We have the question of paternity. There's something about females having more information about who they're related to. But probably more important is the fact that if you compare the top male to the top female, now males have dominance hierarchies and females have dominance hierarchies in the different sexes. Being dominant is beneficial for both but the top male is to going to tend to have more babies than the top female. So here we have to imagine
the top male had 20 and the top female had 10.
That means that each child is
a bigger percentage of
the females contribution to her next-generation.
If I lose a baby,
it's one-tenth of this female's contribution
but if the male loses a baby,
it's only one-twentieth of his contribution.
So each baby or each close relative represents
a bigger percentage of
the female's contribution to the next generation.
For that reason, her children
and her close relatives are a little bit
more valuable to her than to him.
Dominance, remember, is important for females too.
But the point is that the payoff is different.
If the male gets the top slot,
he gets 20, 30 babies,
and if he's down
at the bottom of the dominance hierarchy,
he may get none.
It's between none and a lot.
With females, even a subordinate female
usually gets to have a baby or two.
In this case it's the difference between two and 10.
It's a difference but it's not as big a difference.
Also, if a female is capable of having
a baby but gets into a fight
and therefore destroys her ability to have a baby,
then her fitness actually goes
down compared to what it could have been.
So over-fighting is probably more
beneficial for males than females,
at least from our primitive ancestral past.
As a result, we would expect male strategies,
here we have Superman in the first issue picking
up the car, and female strategies.
This was the only female comic character
I could think of created by a woman.
This is Brenda Starr,
Reporter, both from the same era.
Male strategies and female strategies should differ.
I love this Brenda Starr,
Reporter because this is about a woman gaining
information, like a detective.
The question is, have these evolutionary pressures
led to unconscious differences in
men and women such that they would
impact the heroes they create,
actually influenced their hero creation process?
Now I have to do a few disclaimers,
so don't get into too much trouble here.
I am not claiming that behavior is
hard wired or genetically determined. It is not.
However, I am claiming that genes interact with the environment to produce all of your characteristics. This includes things like your brain, your hormonal system, your sensory systems. This interaction leads to certain developmental pathways. As a result, we are not blank slates. Just think about language learning. You're not a blank slate. You're set up to learn language. But these evolve behavioral tendencies can be overridden by environmental factors and conscious thought. I could consciously decide I want to do this even though it might be against my tendency. I was talking about people's. If you're really, really determined, could you make yourself walk across a floor of tax? Yes, you would. Your tendency wouldn't be to do it. Your tendency would be not to do it, but you can force yourself to do it. We do not claim that adaptive behaviors are good or desirable. We're just explaining, we're scientists, we're just explaining how things work. We're not putting a value on it. We're not saying this is good or bad. We're not claiming that you have to be aware of what
you're doing is beneficial to
your reproductive success in order to do it.

In other words, I just imagine
that you've got a toddler and you've gone on
your first camping trip and there's
a beautiful camp fire and the
toddler's looking at his camp fire and goes,
'Oh, look," and sticks their hand in it.

Now does the toddler really have to say,
"If my hand burns off,
I might get an infection
and if I get an infection that really might
affect my ability to pass genes onto the
next generation," before she takes her hand out?
No, she goes, "Ouch," well actually it's backwards.
She pulls her hand out and then goes, "Ouch."
The pulling the hand out occurs at
the spine and the ouch occurs upper in the brain.
Then she learns not to do that again.

So we're full of all of these what
are called, proximate mechanisms.
Proximate mechanisms are emotional responses.

What are you afraid of?
What makes you angry?
Do you ever have different behavioral tendencies
when you're hungry versus when you're full?
Do you know anybody who's irritable when they're hungry?
These would be behavioral tendencies and you're built to be like that.

Last, I'm not going to be able to predict, of course, what every single man and every single woman is going to be like, or do. We're talking statistically here.

Just as we would say, that men are taller than women, and scientifically that's a valid statement. It's a statistical statement.

But you can still have a single woman who's taller than a particular man, so you're going to get overlap.

So we're going to expect overlap even in these behavioral tendencies.

So you can have a slightly more dominant females and slightly less dominant males, but there should be the peaks are little separated here.

This is my personal statement. I'd like to state that I believe that males can be feminists.

I'm sure that you all could go off and have a whole graduate class on what a feminist is, so I won't go there.

But I believe they can be feminists. I believe they can create feminist characters.

What I'm presenting here,
is the idea that the feminist characters a man creates, might be somewhat different from the feminist characters a woman creates. That there might be some difference. So I'm going to go back now to my original question. I couldn't compare superheroes because I couldn't find enough female superheroes for a reasonable comparison. I said, where can I find female heroes? I was going to work with detectives because I knew that women created lots of detectives. Unfortunately for me as I was roaming the aisles of Barnes and Noble, I roamed out of the detective section, and into the children's literature section, and there was my calling, children. Children's literature aged seven to 12, and I don't think all of it belongs there, but seven to 12. All of these fantasy series, there are plenty written by men, plenty written by women, written by one author. I only picked one that had one author, usually only one author, they're doing heroic amazing things, and the characteristics are limited only by the imagination of the author.
They can have superpowers or not.
They can be in magical situations or not.
There's no special effects budget you have to worry about.
It's what the author comes up with.
So what I did was,
I randomly selected nine novels by women and nine novels by men, that were the first in a series, because I was trying to figure out how to start, that were first in the series. Because I felt the first book in the series would be the most pure expression of the author's ideas, before it was like, oh,
this is episode three or this is book three, what am I going to do now, and try to come up with something new? So I wanted to go with the most pure original vision of the author. I non-randomly picked two books. I felt I had to pick Harry Potter and the Philosopher's Stone, yes, the UK version. Because so many people know this book, that if Harry Potter wasn't conforming to the trend, people would pick on that. So what I did was,
I chose the Harry Potter and the Philosopher's Stone 1997.

Then I have The Wizard Snap, The City of Ember, In Car, Gregor the Overlander, Sea of Trolls, The Secret Country Magic, which is the Septimus Heap series, Erec Rex, and The Shadow Thieves.

Those are the ten books I have, and you see the written 1997 to 2006. Because I non-randomly picked one female book, I'm non-randomly picked one male book to match it. To match Harry Potter, I picked the Golden Compass; a popular well-known book about the same time.

So for men, I have the Golden Compass, which is the dark material series, [inaudible 00:26:34], Aragon, Mister Mundy, which is the Keys of the Kingdom series, The Amulet of Samarkand is the the Bartimaeus trilogy, The Lightning Thief, The Percy Jackson series, Leven Thumps and The Gateway to Foo, Fablehaven Stone, Heart and Fairy wars. So the books range from 1995 to 2006.

All the authors, as far as I could determine, are still alive. Some of these authors are actually fairly young.
So the oldest authors were young adults during the women's movement. So presumably, I'm trying to control a little bit for the culture of time, what time frame, and they're all Western. They were all Western. They're all from the United States or Australia, one is from Germany. The British Isles, they're all from there. Okay. So the first thing I did was I felt I had to establish who the hero was. I expected males to produce male heroes and females to produce female heroes, not for any good sociobiological reason. This isn't my non sociobiological hypothesis. I just thought people would generate a hero based upon themselves. So I thought that. The rest of these are all sociobiological. I thought that male generated heroes would have more physical and extreme power than female generated heroes because of the dominance payoff. Because of that, I thought that males would actually make more powerful women than women would. Just like I saw with the superheroes, I actually thought that their women characters would be more powerful than the ones created by women.
I thought that the hero would have more family members in female generated stories because of the value of family. I thought when I looked at the plot, the thing driving the plot forward in male generated stories would be more grand and show off if you like, oh look at how wonderful I am. Whereas the female generated stories would be more family-oriented, and at the climax, I expected the male generated heroes to be more likely to solve their problem in a physical battle and using a weapon, because a weapon would accentuate your physical power.

Okay. So this what I'm going to try to go through. All right. So first of all, sometimes it's very easy to determine who the hero is, sometimes it's harder. If I had any trouble, the hero is either the person who solves the problem at the end, or if I can't tell the person the series was named after, like in magic, I could not figure out who the central hero was. Here is a book, oh, this was a nightmare, where you had all these different characters,
it's told from all these different perspectives,
but it's the Septimus Heap series.
So I figured he was the hero,
or in the City of Ember where you have really a boy and
a girl and they solve the problem together at the end,
it starts with the girl,
there's more book time for the girl.
So one character got
more time than the
other and it started with them, then they were the hero.
So there's a little bit of artificiality
in here that I would, I was just saying,
if I had to pick one hero who wasn't doing that,
it was not a surprise that males
usually created male heroes.
In two books, there's as a female hero,
in the Golden Compass and also in Fablehaven,
where it's the sister.
There's a brother-sister team and the sister is the hero.
She saves the whole family at the end.
But when I looked at the female books,
I found they're actually more
male heroes than female heroes.
It's not what I expected.
Honestly, I think this has
something to do with marketing.
You know that if you want to sell a book,
you're going to sell it to
more people if it got a male hero,
and I don't have time to go into that,
but I think you can work it out for yourselves.
So I have six books of
where the boy is the hero and four with a girl.
But once I established the hero,
I was then able to ask the question,
what were the powers of the hero?
Well, very superficially, just looking at it,
I said does anybody have any superhuman powers,
and in two books written by men,
we have a hero with superhuman powers.
If you think about Percy Jackson and the Lightning Thief,
he is the son of Poseidon.
So when he's wet, he's super powerful.
Then we got this really weird book,
which I have a constant arguments
with my sister about, who's up there.
Tribute to her. This arguments
about this Artemis Fowl will come up again later.
But Artemis is a super genius.
It's this super-rich, super genius,
so that's really kind of weird.
I didn't have any of that in female written books.
I never had anybody with superhuman physical strength
as the primary hero
or who was incredibly rich or super genius.

But there's other kinds of powers too, let's face it.

You could have magical power, that sort of thing.

I classified high-power, weak powers,

and normal person, a person with no powers.

Breaking up high power into extraordinary.

Now this is in context of the story.

In other words, if you're in a world where everybody's a wizard and you're a wizard too and you're just a normal wizard,

that's not extraordinary power.

That's power, but it's not extraordinary.

But if you're in a world where basically everybody is normal and you can freeze everything, that's extraordinary.

So it's like in context of the story.

You could have extraordinary power compared to the other members,

strong powers compared to other individuals or warrior like fighting abilities like Xena or Batman.

Moderate magic and vigorous or normal fighting skills for a weak power or low magical level.

I've got a character who can solve riddles, although I'm not clear why that's magical

and someone else who if she drinks the magic milk she can see the magic animals,

but anybody who drinks the magic milk
can see the magic animals,
so that's not so special,
and then completely normal people.
For me, I'm just going to clump strong, weak, and normal.
For men, 60 percent of their heroes had
a very high power level and then maybe one was normal.
I had the boy from
Fairie Wars as normal
and then I thought more about it and I said,
well, he's normal all the way through.
He's a normal boy.
He goes into this alternative dimension
with the fairies and the fairy prince,
and all these things happen.
He is a normal boy all the way through
until the very end and then
he does a magical spell which saves everybody.
He does do some magic in the end,
so maybe belongs in weak.
So somewhere in between there.
Female authors.
Again, you see a lot of overlap here,
but they're much more likely to have
their hero be a normal child,
30 percent of them have a normal child as the hero
and then slightly less
likely to have a super powerful hero,
but Harry Potter's powerful.
We know that he's got special powers,
not only from Lord Voldemort,
but from his mother that makes him special.
In Sea of Trolls, the boy is
a bird and you can call up storms and he can
call up fire from underneath the ground
and really nobody else can do
this except the a guy who's training him.
So you have these really powerful heroes,
but there's a little bit of overlap here.
But what about the females?
Can we get here now?
Unfortunately for me, even when you
have a male as the primary character,
there is almost always a female teammate for him.
Really what you have is a boy-girl hero team.
Since you have these boy,
think about Harry and Hermione, right?
They work together most
of the time, they're there together.
He can't do it without her, right?
There most of these, they have
these boy-girl hero teams
and so I went I looked at the girl,
the primary girl in all of this.
Now over the 20 books that had male heroes,
because some of them had female heroes, had male heroes, had some kind of male-female hero team except for two. Secret Country written by a woman and The Amulet of Samarkand written by a man, so I was able to throw those out and this gives me nice nine and nine. I've got nine, nine females to compare in each group.

Now in Artemis Fowl, this is a really weird book, because he's an anti-hero. He is actually trying to kidnap a fairy and ransom her, so that he can restore the family's mega wealth. This is not what you usually think of when you think of a hero, right?

But the fairy that he captures actually ends up working with him in the middle of the story to accomplish a few things and she's in book two and she's in book three and it seems like that's this author's primary female character. So even though they appear to be on opposite sides, they're generally working at some point together, so I used her as the primary female character in the Artemis Fowl books.

Now, I'm going to show you this schism. This is where you break up
two extraordinary power versus sort of normal power.
And I have here four women created by
men with this extraordinary power
and I'm going to show you more details in just a second.
Holly Short from Artemis Fowl could
either fit into four or three,
there's a sort of a gray area there,
because she's very, very powerful.
She's a fairy, she knows combat,
she's the best of her group,
she's the first female to be in this combat group,
but she is amongst other fairies,
and they do have other combat individuals.
So it's hard to figure out how super-special she is,
but she's pretty special.
I felt that the strongest female I have,
in the female database, is Hermione.
Now, this is a closer look.
This is the top three female protagonist
written by men and women.
Here's my top three for men.
Ira from Eragon, she's
an elf princess with
superhuman physical warrior strength,
psychic abilities, a 100 years old,
but looks young and beautiful.
Annabeth, her mother is a Athena,
so she's a half god and she's trained in combat.

Then Winter from Leven Thumps,
and she's the only one in this book where,
Winter could come up here and touch this desk and you'd all be frozen the whole building, everything and all of you.

Then if she wanted to, she could
touch it again and you'd all be thawed out.
Pretty amazing power in my opinion.

Now, the highest one here is Hermione.

Hermione, let's think about her.

Harry Potter book number one,
she's 11 years old,
her first year at Hogwarts.
She's really good, she's good at spells, best in her class.

But is she more powerful than Dumbledore, Mcgonagall, Snape, or any of the other competent adult wizards around her.
She hasn't gotten there yet, right?
She's powerful, but she's not extraordinarily powerful compared to the other members of her book.

In Gregor the Overlander,
I've got a princess, she's human.

Now she's got this bat,
it's psychically connected to the bat.
But other people in her culture have these too.

She's been trained in warrior combat,
so she's sort of like Xena in a way, but she's human.

She is made clear that she is human and [inaudible 00:37:32],
is a human girl who is with the vikings and
she wants to be a berserker and die
in battle so she can go to Valhalla.

She does pick up a strange
power in the middle of the book,
she gets exposed to dragon blood,
and then she can hear birds talking.

But they're not very smart and
what she learns from them isn't very useful,
in fact, she finds it annoying.

Here's my top three females from males versus females.
I have elf princess [inaudible 00:38:00], half god,
and can freeze anything with human,
human and really good first-year wizard.

My second and taking the second three.
I don't have time. Edie's a glint.

In this book, she's the only glint.

Glints are very rare,
so she has this extraordinary power.

Holly Short from Artemis Fowl, the combat fairy,
and then dropping down to Holly Blue from Fairie Wars,
she's the sister of
the fairy king and she has these psychic spying powers.
If we compare that to [inaudible 00:38:33], the princess from [inaudible 00:38:35] is really mortal, and she actually can do magic but she's surrounded by people who can do it better than her. Her magic isn't really her thing.

I love this. Bethany from Erec Rex. Both Erec Rex and Bethany come from the magic realms and they go back there. Bethany is talent is she's great at math. That's her power and she can break codes.

Then Meggie from Inkheart, maybe some of you reading Inkheart. At the end now, Meggie has the same power that her father has, when she reads a fictional book, items from the book will pop into reality, and then items from reality can pop into the book. In the first of the series, she doesn't really have any control. She doesn't have a lot of control over what happens. In fact, this is how the father has lost the mother by accidentally reading a book and the mother popped into the story and he loses her for ten years. I actually have a friend who thinks that should be a negative power, but I gave her power two and then if you see at these last three.
We see we have two girls that are completely human they are in exceptional circumstances, but they're just completely human and never do any magic, compare to the other girls with lower magic like Lyra from the Golden Compass, can read the alethiometer and it will answer her questions, that sort of thing, or drinking the magic milk.

I saw this sort of dichotomy, just summing it up.

Do any of them have superhuman physical powers for male written stories somewhere between two to three depending upon whether you want to include Holly Short.

Well, what about Xena like powers?

We got two there for women created stories. Gregor the Overlander, Sea of Trolls and total it all up.

Female characters that are warriors, physically superhuman or almost superhuman.

Four for men and two for women. Family structure, rolling right along.

It's common knowledge is usually that these characters are orphans, so I expected most of them to be orphans.

But I also found I had what I call functional orphans, which is, although you might have a mother and or a father somehow or other, you really don't.
That somehow or other, they're useless.

So here we have a Neil's.

Sam is an outright orphan.

He's just like Harry Potter.

His parents died before he could ever know them.

He's raised by an abusive and unloving aunt and uncle.

Okay, out now orphan.

But then we have the kid who's

sold to the magicians at age five,

the girl who's illegitimate.

So she's raised by the academics.

She doesn't even know who her mother and

father are which are in the middle of the book.

Artemis Fowl, he's lost his mother,

his father, and his mother's insane, [LAUGHTER] right?

So he's got a mother, but she's insane.

Stoneheart, I love this one.

The father is dead.

The kid has gone into this bizarre thing has

happened and statues are

chasing him and trying to kill him.

He runs home and he

gets home and he finds a note from his mother.

He's 12 by the way.

A note from his mother saying that she had an opportunity

to perform in a movie in Spain and she's gone.

And the woman now downstairs will check in on him.
So not really much of a mother.

Then we have some who are adopted,
but their adopted families are pretty good.
So they're sort of along the borderline.

With women, the only outlet orphan was Harry Potter.

Then we have Erec Rex who is
being raised by a loving adoptive mother.

But it appears in the stories that
the parents are overseeing him,
that he's been hidden to protect himself.

This isn't often a pattern in these stories,
hiding the child to protect them from danger.

Then in the City of Ember,
the girl is at the age where you start work.

Her parents are dead,
but she has a grandmother.

When her grandmother dies,
she's taken care of and
her toddler sister are taken care of by a kind widow.

So there's again the gray area.

Somewhere between five and seven for
men and one to three for women.

Now, when I was doing this,
you noticed something about
mothers that was a little disturbing.

That of the eight living mothers,
one of them being adoptive,
written by men, five of them had some kind of problem.
So I've got: an evil mother,
an insane mother, an responsible mother,
one where the parents are getting
divorced because of the mother,
and one where the parents sold
her son to the magicians at age five.
You might say, well maybe they were giving
him a better life, but in fact,
there's never any evidence that they tried to check up
on him and he's not treated all that well.
So all the mothers are good.
If we have women writing a book, then mothers are fine.
Well, what about the other side of the coin?
Okay, fathers, there were less living fathers around.
And if there were,
I would really say how many of them problematic?
Say 50 percent, I really think only two.
In The Lightning Thief,
Percy is angry at his father, Poseidon,
because he's not acknowledged
Percy as his son or been involved in helping him.
But it turns out that if he had,
Percy's life would have been a danger.
That half gods are supposed to be killed.
So that not acknowledging him is actually protecting him.
Otherwise, we've got the parents who sold their kid,
and in The Golden Compass,
the biological father leaves
the child with the academics to be raised.
Which seems like actually probably a good thing to do,
but he turns out to do something
very evil at the end of the story.
So I consider him problematic.
Well, of course, what about female writers?
Positive fathers. All the fathers are positive,
which means that male authors create
bad mothers and sometimes bad fathers.
But women authors don't create
bad fathers or bad mothers.
Sibling relationships.
Male authors rarely had siblings in two of them,
there are true sibling relationships in Fablehaven,
it's very important, the boy and the girl together.
But in Faerie Wars.
This biological sister actually tries
to disrupt the acts of her brother.
She gets in the way.
She's totally nasty and useless.
Well, actually worse than useless, she gets in the way.
Then we have two with adoptive siblings that
are fine. For women.
Seven of the ten stories had siblings
and all sibling relationships were positive.
In the three stories that don't have siblings, okay, Harry Potter doesn't have a sibling and Incarnate there's no sibling.

In Shadow Thieves, the girl doesn't have a sibling, but her first cousin comes to live with her and they are involved together in the adventure.

So she has an important first cousin relationship.

Just as a flashback here, remember of the five identified female superheroes, two of them were sibling groups.

It's made really obvious in the TV show Charmed, that they're more powerful together.

They have the power of three. They actually have to come and live in the house together because they're more powerful together.

Okay, driving force of the plot.

I wasn't exactly looking for this, but I noticed it as I was working.

There are certain books where revenge, anger, or rebellion drives the story forward.

That was true in seven books by men, five times it's actually the hero, like in The Amulet of Samarkand.

The young wizard is really angry. He wants to prove that he is good and he wants a good wizard.

He wants to take revenge on
the adult magician who has punished, and beat, and humiliated him. That's the driving force forward in the story. It occurs in a number of these other stories as well. Sometimes it's done not by the hero but the hero's companion, right? So in Fablehaven, the girl is the hero and it's her little brother who disobedys the directions of the grandparents, and that gets them into trouble and generates the rest of the action of the story. For women, it was never by the hero, and only one spy, someone close to the hero. In Sea of Trolls, the little sister doesn't listen to her brother and gets herself kidnapped by the Vikings and then he has to get himself kidnapped as well to get her back. This is a side. This is so amazing to me. Here we have a female hero generated by a man Lyra from The Golden Compass. In the very beginning of the book, she's being disobedient. She's in a room she knows she shouldn't be in. Her demon, which is her conscious, is telling her to get out of
that room because she's in that room, she hears something she shouldn't have heard, and that generates the whole rest of the story and gets her into her adventures.

Gregor the Overlander, a male hero created by a woman. Too good to be true.

Okay, here's this poor little boy, the father, the wonderful father mysteriously has disappeared two years earlier. He lives and a tiny little apartment in New York City with his mother, his senile grandmother, and his two little sisters, one of whom was a toddler. Because they have no money, he has to stay home from summer camp and take care of his senile grandmother and his toddler sister, so his mother can go to work. He could force his younger sister to stay home and help him, but of course, he would not do that. So she gets to go to summer camp. He's in the laundry room doing the laundry, playing with his toddler sister, but he really loves his toddler little sister when she disappears down the air shoot and he has to go after her to save her and they end up in the underworld.
What are you saving? Remember, I thought that males would have a very grand effort and females less. So this did not really come out either, these are stories where you're supposed to be doing something big. Something big is happening. So in male authors somewhere between six and seven, you're doing like in Mister Monday, he has to solve the problem to stop the plague. There's some mysterious plague that's killing everybody and he's got to do it. The female authors like in City of Ember, the two children figured out that the city is dying, and they have to figure out how to get out, and once they figure out how to get out, they're able to tell everybody else how to get out. So they're all doing something pretty grand. But I said, "well, okay, let's say you're not saving a civilization, what are you doing?" In Stoneheart, all the way up until the very end, he's just trying to get back to his own reality. These statutes trying to kill him and he's trying to get home. In Amulet, he's trying to restore his reputation and a self-respect.
In Artemis, he's trying to restore his family's mega wealth. This is male.

For the female author stories Sea of Trolls, save your little sister, age five, Gregor save your little sister, age two, was its Matt, save your little sister, age four, Eric, save your adoptive mother, and [inaudible 00:49:33] save yourself and your father. I said, "whoa, look at that pattern!", these female generated authors are often having this hero, could be male or female, this hero, who their major goal in the story is to save there little sister, who was about 10 years younger than they are. Usually there's a big age differential here because these heroes are usually around 12 or 13 or 14. So is your primary goal to save a close family member? For male author somewhere between one and three. Let me use The Lightning Thief here. We know that in The Lightning Thief, Percy would like nothing better than to save his mother, but when given a choice between saving his mother and saving everybody, he chooses to save everybody,
because he knows that's what his
mother would want him to do.

But he does choose everybody over her.

Female authors, seven of the stories,
the major thing is just to save a close family member.

The climax of the story and I'm going to
overflow here here just wrap this up here.

What happens to the climax of the story?

What is the hero do? I had categories.

Battle with a crafted weapon like a knife or sword.

Battle with an uncrafted weapon
of some kind, like with magic.

Heroes don't really fight,

they redirect, and there's no battle at all at the end.

So when we look at this,

a battle with traditional material weapons,

male authors, six of the books,

usually a sword by the way.

Sword, sword, get sword.

First three sword, sword, sword.

Female authors, none.

Now, is there a battle with uncrafted weapons?

Yes, for female authors.

Now is my favorite. I have to tell you this one.

This is Shadow Thief.

This is Charlotte. Charlotte is a normal girl.

An evil god has been stealing children's shadows,
and the children's end up in the zombie-like death state.
She has to go into the Greek underworld,
which is through a door in the Mall of America.
Yes, to try to save the children's shadows.

Now the evil God.
She goes to Hades to
tell this other evil God is doing this.
And Hades goes [NOISE] of course he's not.
Because basically the evil Gods
trying to take over from Hades.
Hades was no, no, no, because I banished him.
I told him he could never set
foot down here again, so he can't be here.
Meanwhile, the evil God is being touted
around on a chair on top of a litter by servants.
So there's this big battle and Hades is losing,
and finally, Charlotte picks up
a rock and throws a rock at the chair.
The chair falls over.
The evil God falls on the ground,
his legs burn up,
Hades takes over, and everything's solved.
She solves a problem with a rock.
Harry Potter, if you know the end of that story,
he touches the evil wizards
face and the evil wizard burns up,
a power protection from his mother and things like that.
So we have these unconventional ways of winning a battle with women.

Re: sister redirect. I can't go into the fight, I'm having with my sister about this one about Artemis Fowl. So that's why he's got a question mark there.

But female artists, well, let's take Gregor the Overlander, the little boy who is too good to be true. The evil rats are coming, he's re-found his father, he's got his toddler sister, all his friends are there, and he realizes that they're all going to be done in, unless he redirects them. So he runs in one direction toward the abyss, so that all the evil rats will run after him with his intent as he does, throwing himself into the abyss, to save the rest of his friends and family. He doesn't die. There's a happy ending.

Then the most violent book, one of the most violent books, The Sea of Trolls, where the kids are kidnapped by the Vikings and people get killed, and they get sold into slavery.
No battle at the end.

Basically, the evil witch doesn't do
the spell that he gives her properly,
gives her the right spell,
she doesn't do it properly, and she gets done in.

So to summarize, is there
a battle with some client at the climax?
Well almost always for men,
and only about half the time for women.

Conclusions. What is the average male created hero like?
The hero's an orphan or a functional orphan,
with a problematic mother,
and no siblings, who
most likely has some sort of exceptional power,
but it's certainly not normal.

Who may begin the story rebellious,
angry, or looking for revenge.

Who solves the problem in battle,
and who does something grand.

The female created hero
has a family with positive siblings,
with good parents, and
occasionally the mothers actually special.

Who is almost as likely to
be normal as to have exceptional magical power,
but never has extreme physical power,
who is not rebellious,
angry, or looking for revenge, 
who is just as likely to solve 
the problem without a battle as in battle, 
who does something grand and saves a family member, 
often their little sister. 
Do these stories have powerful females, 
and if so, what are they like? 
They almost all have an important female somewhere, 
but the men are more likely to 
create extra powerful females, 
when compared to the female stories. 
Just because I am an older woman, 
and I wondered about the image of 
older women in these stories, 
I went back and I said, "are there any older, 
strong or important, positive women in these stories?" 
In four of the books by men, 
there were important older women and 
half the time they looked young and beautiful. 
So you have in The Golden Compass, 
the witch queen, who's 
absolutely gorgeous and really old. 
Then the other half of them don't 
have any special powers. 
For the female written books, 
80 percent of them have an older powerful woman, 
and seven of eight of them have special powers.
None of them look especially young and beautiful.

Here we have picture credits

and acknowledgments. Thank you.