Children´s Television Worldwide II:

Gender Representation

in the

USA

Project director German Team: Dr. Maya Götz (IZI, München)

With the collaboration of the Team in USA: Prof. Dr. Dafna Lemish, Rutgers University

With the assistantship of: Diana Floegel and Dan Delmonaco
And thanks to Jon Oliver for technical assistance

Statistical analysis and report by: Dr. Ole Hoffmann, Mila Markova

Content

Children's television in the USA

1. General information about children's TV in the USA

The landscape of children's television availability in the USA is heavily saturated with dozens of different channels dedicated to children's programming; public broadcasting is distributing non-commercial children's programming, and several terrestrial broadcast networks providing family programming. Programs on the dedicated children's channels are being accessed via cable and satellite subscriptions as well as on demand. PBS and terrestrial channels are accessed free of subscription payments.

2. Sample selection

Given the complexity of the television market, the absence of accurate public information about share of the market for each channel, and the dramatic decline experienced in recent years in accessing television for children via the traditional networks, the sample was based on the most popular television channels in the USA across the board: Disney, Disney Jr. Nickelodeon, Nick Jr. Cartoon Network, Sprout-Universal Kids, as well as the public and free station of PBS Kids. Two days of each of these selected channels were recorded: one weekday and one weekend day, from 6:00 (or 7:00 in one case) I the morning, to 21:00 (or 20:00 in one case) in the evening. The recording decision was based on the fact that weekdays' program lineups are very much identical, and Saturday-Sunday lineups are very similar as well, but different than the weekdays. Data was collected in the highly diverse and heavily populated New Jersey region of the United States during the months of September-October 2017 and coded by two trained graduate students: A female and a male.

Dates of recording: September-October 2017

The sample analyses in the USA consists of 196:17 hours of explicit children´s television, --- hours of fictional shows, 476 programs (431 fictional shows), 1,654 characters (fiction) and 684 human characters.

Broadcasters	Cartoon Network, Disney Channel, Disney Jr., Nick Jr., Nickelodeon, Sprout–Universal Kids, and PBS Kids
Hours of recording	196:17
Programs	476 (431 fiction)
Characters in fiction	1,654 (684 human characters)

3. What is offered to children – Results at show level

3.1 Fictional or non-fictional?

We coded every show/piece of programme of our sample. Advertisements and trailers are coded in block (e.g. there are 6 different commercials between two shows they are coded as one block). A show begins with the opening and normally ends with the credits (it can be so that one show consists of 2 episodes, like in Sponge Bob, but they are still one show.) The sample in 2017 comprises altogether 476 shows that can be categorized into different program types. 431 shows or 90.5% can be referred to as fiction, 5 shows (1.1%) were non-fictional entertainment and 40 were children´s television hybrids (8.4%). Of interest for the further analysis of the children`s programs are only the 431 fictional shows that were coded.

Fiction VS. Non-fiction / USA

fiction	90.50%
non-fiction	1.10%
hybrids	8.40%

n=476, USA sample
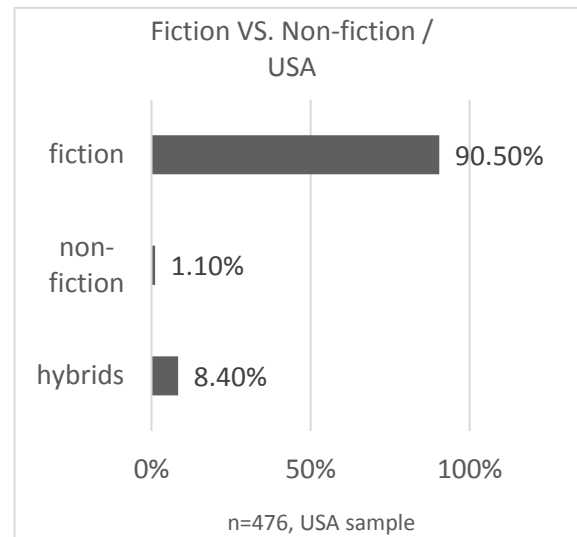
Those are in 76.8% of the cases animation shows and in 12.1% of the cases shows with real people (n=52). Then there are 48 mixed formats with 11.1%.

Beast Boy – "Teen Titans Go!"
Cartoon Network (Fiction)
Source:http://teen-titans-go-italia.wikia.com/wiki/File:BeastBoy.png

"Sid the Science Kid"
PBS Kids (Hybrids)
Source: https://www.pbshawaii.org/sid-the-science-kid/

Craig Zaremba – "Homework Hotline"

PBS Kids (Non-Fiction)

Source: https://www.youtube.com/watch?v=OPdmrGiu5qY

Six out of seven channels are commercial ones. Almost all of the children's programs on these channels are Show-Fiction. In comparison to Commercial TV, the fiction programs on the Public TV channel PBS are approximately one third of all programs.
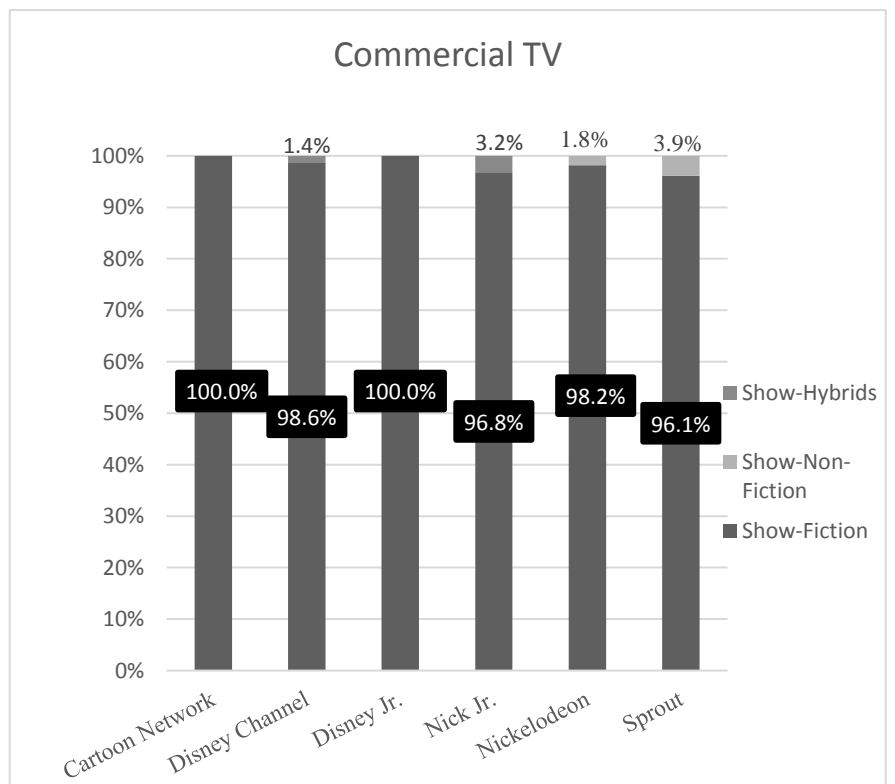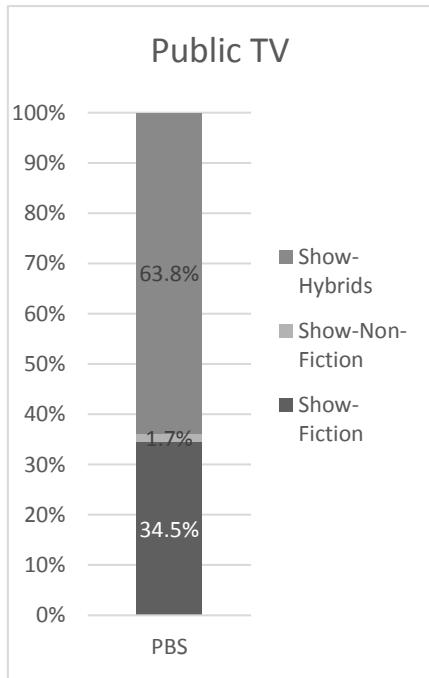
The comparison of the data in 2007 and in 2017 shows that the share of the fictional shows is bigger (84.5% in 2007; 90.5% in 2017), the share of non-fictional shows is smaller (9.0% in 2007; 1.1% in 2017) and a slight rise can be observed in the share of the hybrids (5.2% in 2007; 8.4% in 2017). The "other/not recognizable" category is excluded.

Concerning the comparison of the Public and Commercial TV, we can state that the Public TV has decreased almost by half in terms of fictional programs (2007 Show-Fiction in PBS: 75.0%). The fictional share on Commercial TV has a minor difference (2007 Show-Fiction in Nickelodeon: 98.6%; Nick Jr.: 93.3%).
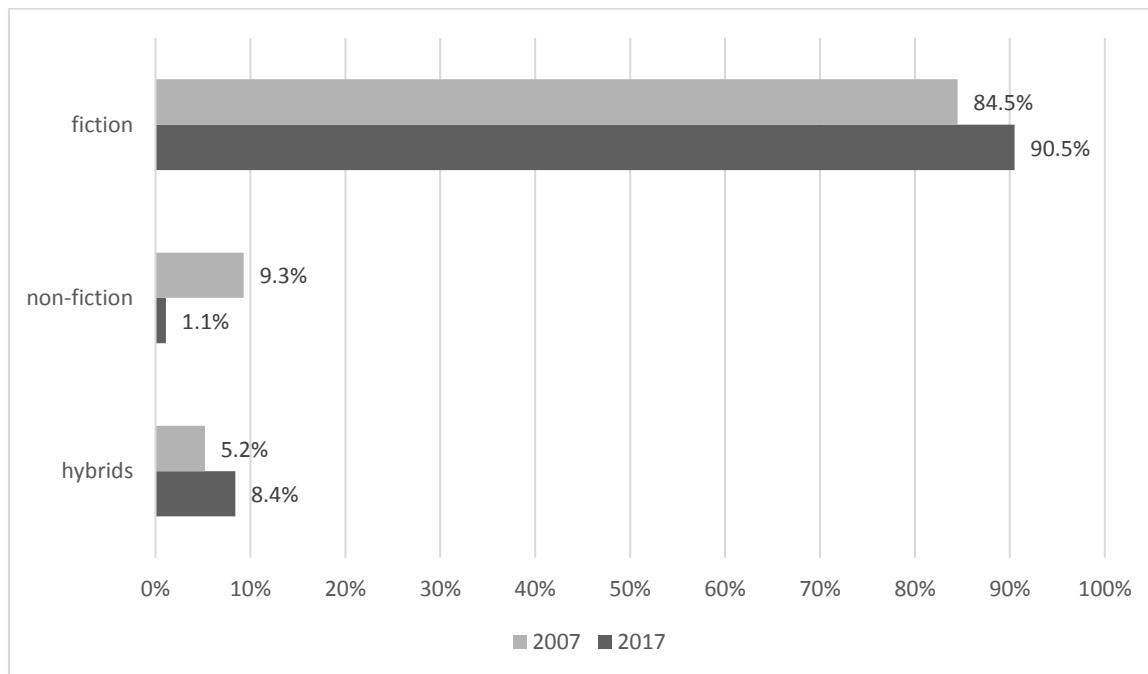
3.2 What type of fictional program?

We coded the general type/genre of show. Is it an animation or a puppet show or are there real people in it? Among the 431 recorded fictional shows 331 (76.8%) are animation shows; in 52 shows (12.1%) real people are the Actors/actresses and 48 are mixed formats (11.1%). There are no puppet shows.
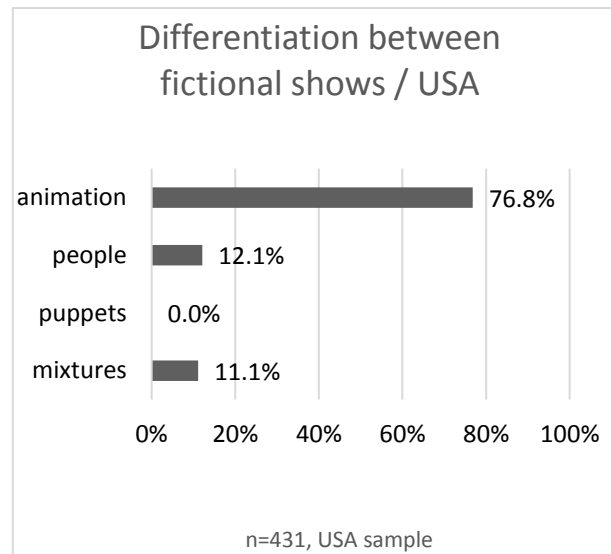
As compared with the previous results from the 2007 sample there is fewer animation (2007: 84.8% / 2017: 76.8%) and twice as more Mixtures (2007: 5.5% / 2017: 11.1%).

Differentiation between fictional shows / USA

animation	76.8%
people	12.1%
puppets	0.0%
mixtures	11.1%

n=431, USA sample

International comparison

	Animation	Live action	Puppets	Mixtures
Taiwan	95.2%	4.2%	0.0%	0.6%
Canada	84.7%	2.8%	1.3%	11.1%
Cuba	83.6%	6.8%	0.0%	9.6%
Germany	83.4%	15.9%	0.2%	0.5%
USA	76.8%	12.1%	0.0%	11.1%
Israel	76.7%	19.7%	0.0%	3.7%
Belgium	75.3%	18.6%	0.2%	5.9%
UK	62.2%	25.0%	6.9%	5.8%
Total	**78.1%**	**14.5%**	**1.4%**	**6.0%**

With a percentage of 76.8% of animation on children´s television USA comes fifth in the international comparison and is below the average. The second largest group, shows with real people, is with 12.1% also below the international average. The mixed group in the USA is 5% above the average.

In 2007, USA was also above the average, concerning animation (USA: 84.8%; total in 2007: 83.8%).

On PBS the animation makes 75.0% of its program, whereas Cartoon Network (Commercial TV) consists exclusively of animation (100%). Most real people can be seen on Disney Channel (41.4%), whereas Nickelodeon offers the most mixed fictional programs (41.1%).
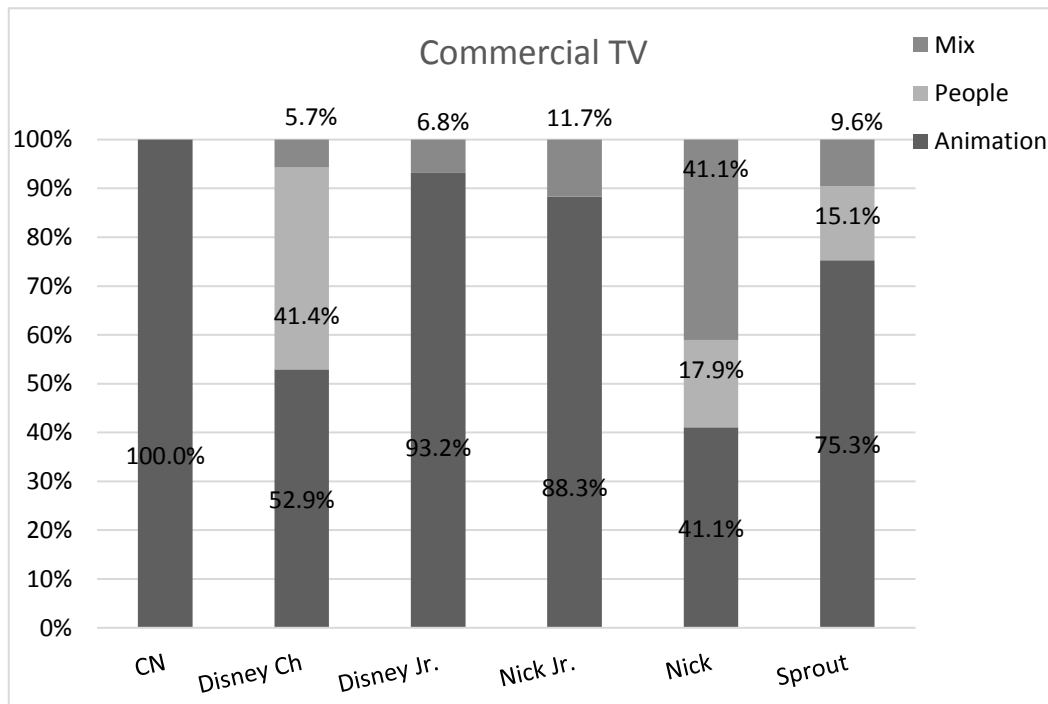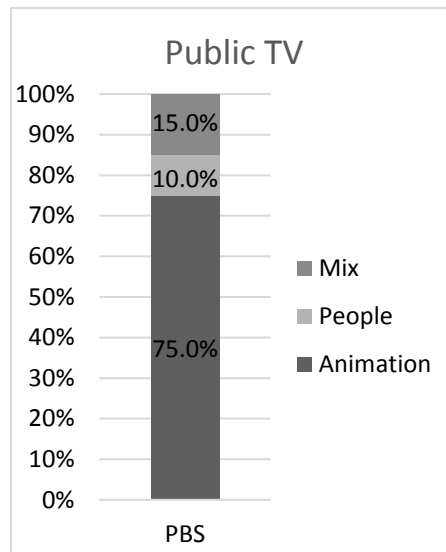
3.3 Who speaks?

The narrator figures were also coded. In 38 of all fictional programs (8.8%) the voice of the narrator is female, whereas the number of the programs with male narrators is 131 (30.4%). No narrator is found in 162 of the programs (37.6%), both female and male narrators could

Narrator / Voice over (USA)

n=431, USA sample
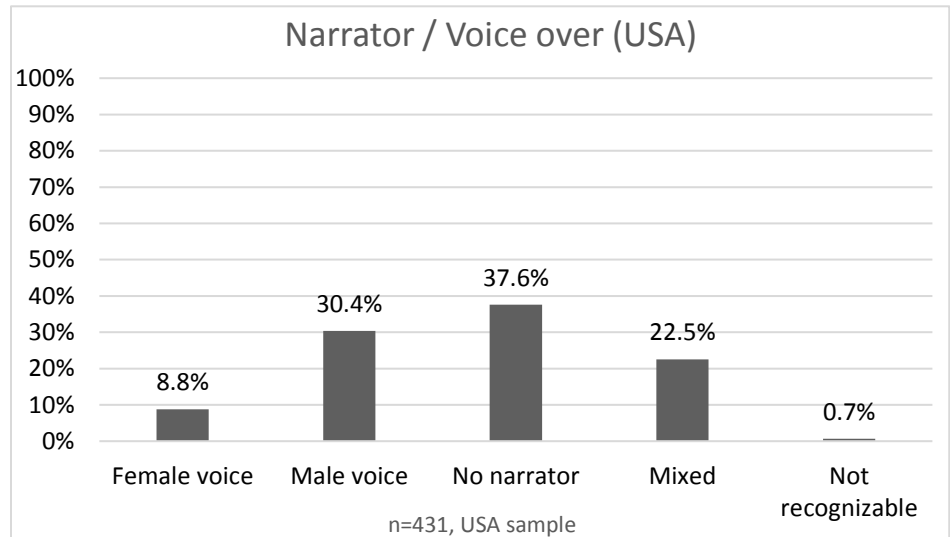
be found in 97 programs (22.5%) and in 3 of the programs it is not recognizable, if there is a narrator or not (0.7%). Even though one third of the fictional shows have no dominant voice-over (37.6%), if there is a narrator, it is almost 4 times more often a male voice (30.4%) than a female voice (8.8%).

Moreover, we can compare these results with the ones from 2007. This comparison revealed a big difference in the number of male and mixed narrators (Male: 4.4% in 2007; 30.4% in 2017/ Mixed: 0.l2% in 2007; 22.5% in 2017). Furthermore, there was no dominant voice-over in the majority of the cases back in 2007 (92.0%).

3.4 Where are the shows produced?

We coded in which country the show is produced. Basis for evaluation were the final credits, the TV guide magazine or other sources. The main question was whether it is a company from one´s own country or from a foreign country, or whether the show is a co-production of the domestic broadcast with other countries. The fiction shows are in 58.7% of the cases domestic productions (n=253), 26.7% are produced in another country (n=115) and 14.6% are an international co-production (n=63).

In comparison with the sample from 2007, the share of domestic productions has declined in the ten-year gap between the two studies (82.7% in 2007; 58.7% in 2017). Logically, the share of the non-domestic productions has increased significantly (17.3% in 2007, 41.3% in 2017).

Country of production

n=431, USA sample
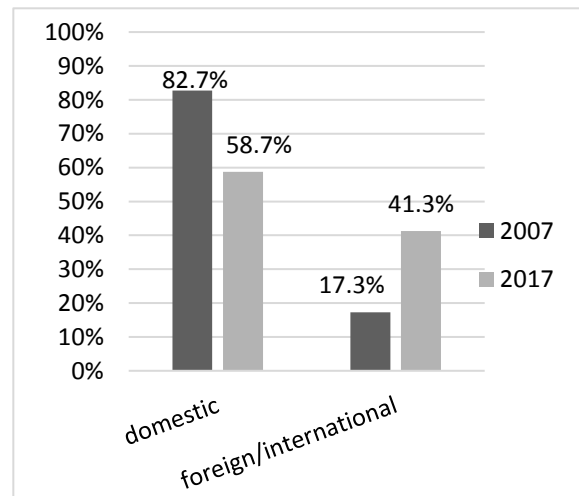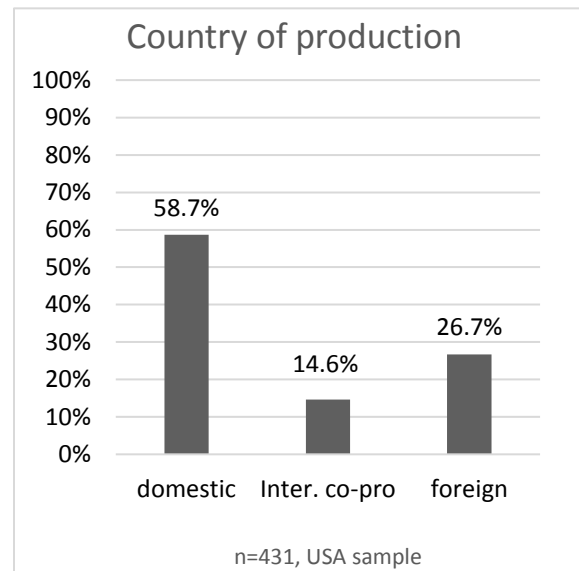
International comparison

domestic prod.	
UK	63.1%
USA	58.7%
Cuba	25.4%
Israel	21.4%
Canada	20.7%
Belgium	8.5%
Germany	6.9%
Taiwan	3.6%
total	27.9%

Of all programs shown in the USA children´s television, 58.7% are domestic productions, while the smaller part are foreign or international productions (41.3%). USA takes therefore the second place and so is twice as big as the international average.

Of the programs shown on USA Children's television, 66% are USA productions, followed by 14% produced in Canada and 11% - in the UK.

In 2007, 83% of the programs were produced in the USA, 9% in Canada, 4% in France etc.

When we compare the Public and Commercial TV, we can see the great difference in terms of the domestic and non-domestic production. Domestic productions in Cartoon Network or Disney Channel appear four times more often than in the public channel PBS. On the other side, PBS has the biggest part of international co-production programs (65%).

Cartoon Network also has no foreign productions, but it is the leader of the domestic productions (89.2%). Commercial TV channels are the definite leader in terms of foreign productions. In comparison to 2007 some channels show an immense decrease in domestic productions (Sprout – 66.7% in 2007; 4.3% in 2017 / Nick Jr. – 100% in 2007; 36.7% in 2017).
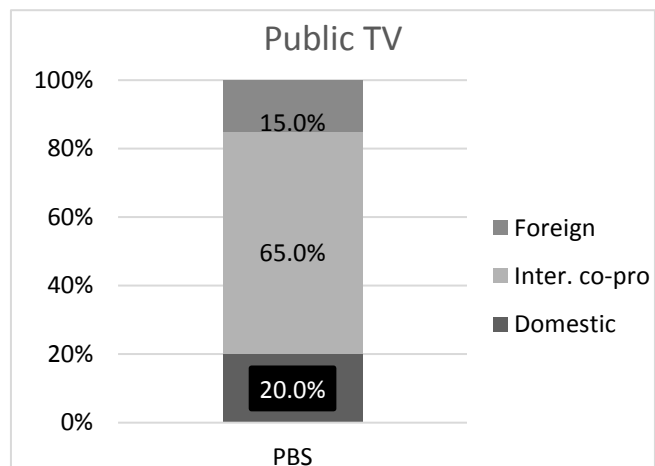
Public TV

Foreign — 15.0%
Inter. co-pro — 65.0%
Domestic — 20.0%

PBS

Commercial TV
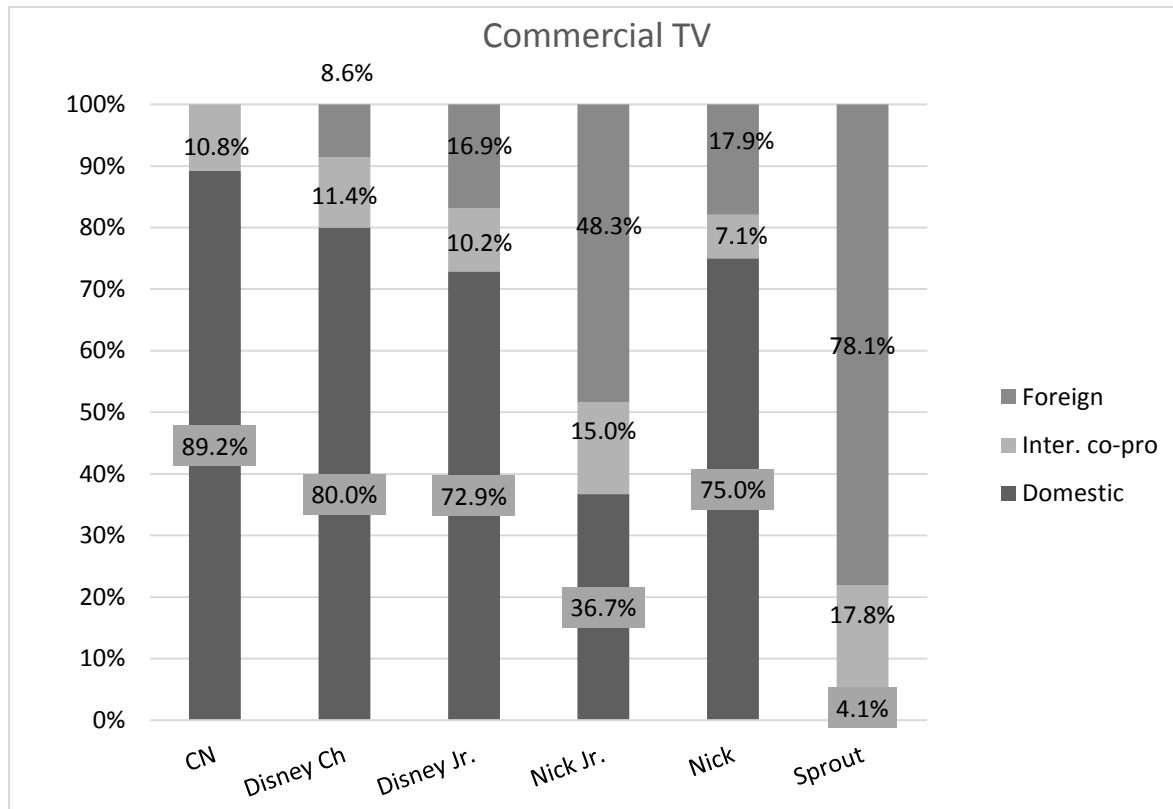
4. Who are the main characters?

A main character is a character that stands out due to constant presence and the explicit naming in the title or theme melody, or, in the context of an individual episode, a character that stands out due to constant presence and significant role in moving the plot forward, even if not named in the title or theme melody.

Gender of the characters (fiction, non-fiction and hybrids) / USA

n=1,838, USA sample
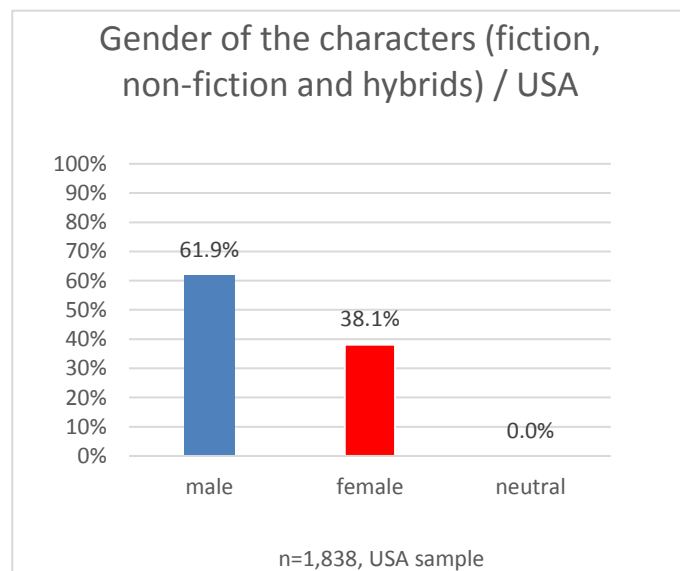
The first step is the analysis of the main characters' gender that the main character has, based on grammatical terms, name of character, voice, and easily identifiable sexual characteristics. In terms of characters, in all shows (fiction, non-fiction and hybrids) 38.1% are female and 61.9% are male, which contradicts the idea of equal representation of both genders. There were also no characters with unidentifiable or neutral gender.

Looking only at non-fictional programs 35.5% of the main characters are female and 64.5% are male.

In the 431 fiction shows 1,654 are identified as main characters, which is almost 39% less than the number of the main characters in the study from 2007 (n=2,697). Although the share of the female characters is extremely small (38.1%), it was even smaller in 2007 (33.1%).

When we look separately at the channels, we can see, that the highest representation of female characters was on Disney Channel (51.1%). The public television channel PBS has 40.8% female and 59.2% male characters. In comparison to 2007, Cartoon Network, Nick and Sprout have increased their share of female characters, while Nickelodeon has almost 6% less female characters.
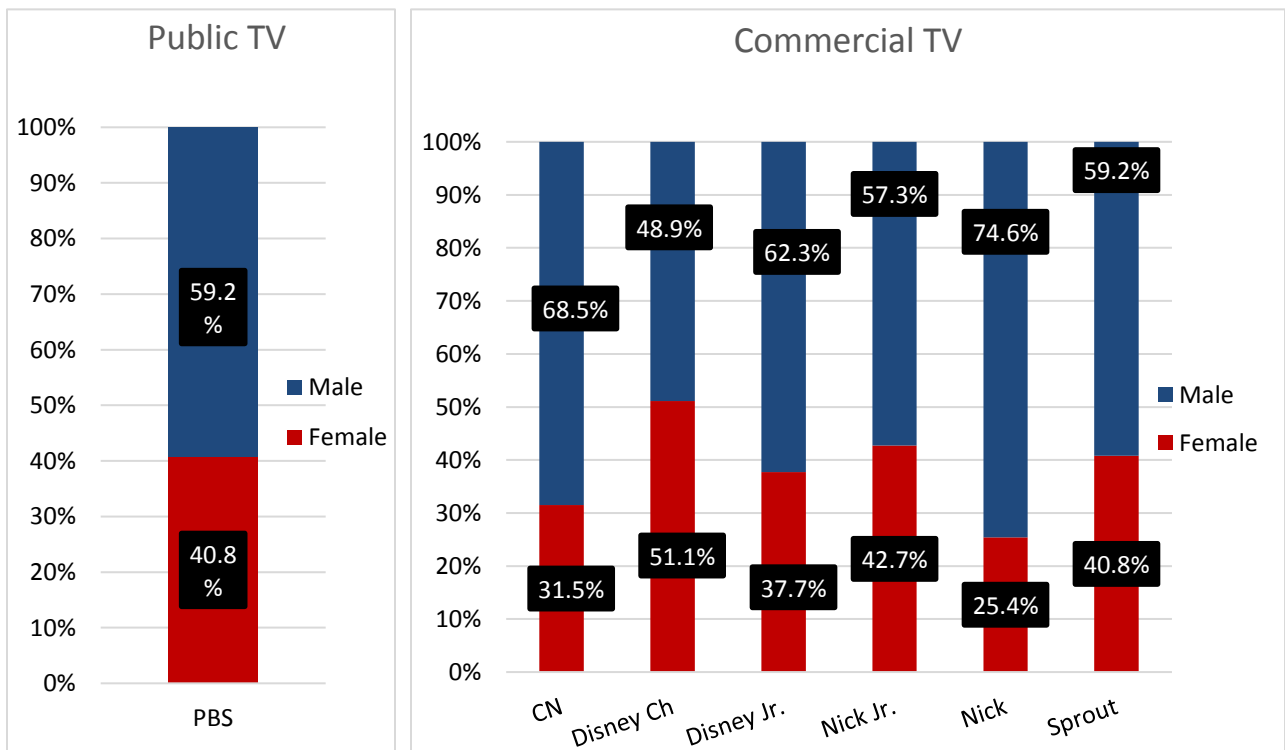
Gender perspective: International comparison

The characters of the fictional shows in USA children´s television are in 38.2% of the cases female, and in 61.8% male. Among the examined countries USA obtains the second place in terms of female characters and reciprocally, the fifth place in terms of male characters. Interestingly, there are no gender-neutral characters on the USA Children's television.

USA is therefore considerably above the international average, when it comes to female characters.

International comparison

female		male		neutral	
Cuba	41.1%	Israel	68.8%	Taiwan	12.5%
USA	38.2%	Germany	65.4%	UK	4.0%
UK	36.5%	Canada	64.3%	Belgium	2.4%
Canada	35.3%	Belgium	63.8%	Germany	1.3%
Taiwan	35.2%	USA	61.8%	Cuba	1.1%
Belgium	33.8%	UK	59.5%	Canada	0.4%
Germany	33.4%	Cuba	57.8%	Israel	0.0%
Israel	31.2%	Taiwan	52.3%	USA	0.0%
total	**35.0%**	**total**	**62.5%**	**total**	**2.5%**

In 2007, the male characters in fiction shows were 66.9% and the female – 33.1%. There is a positive change, when it comes to the balance between male and female characters (Male: 61.8% / Female: 38.2% in 2017).

4.1 Fiction: Is the main character human – animal – monster – object – machine?

Another interest of the study was finding out what the nature of the characters is. Is it a human, an animal, an object, a machine, etc? 684 characters of the recorded are humans, which corresponds to a percentage of 41.4%. 576 characters (34.8%) are animals.

Type of characters / USA

Human 41.4%
Animal 34.8%
Monster/myth. cr. 18.3%
Plant/Object 0.8%
Robot/Machine 4.7%

n=1,654, USA Sample
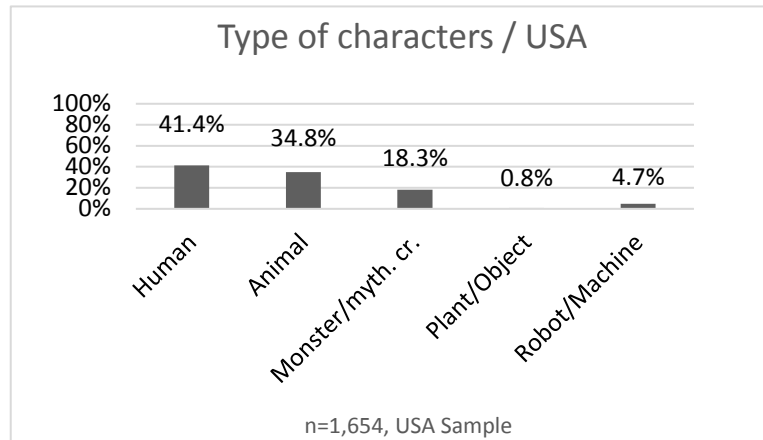
The monsters or mythical creatures appear as the third largest group. 302 characters (18.3%) can be assigned to this group. Furthermore, robot or machine were 78 characters (4.7%) and plants and objects consist of 14 characters (0.8%).

Calvin Millan and Cesar Millan – "Mutt & Stuff"
Nick Jr. (Fiction: Human characters)
Source: https://tvlistings.gracenote.com/grid-affiliates.html?aid=njherald4ls

Blaze – "Blaze and the Monster Machines"
Nick Jr. (Fiction: Monster character)
Source:
https://www.businesswire.com/news/home/201

International comparison

	Human	Animal	Monster/etc.	Plant/Object	Robot/ etc.	Other
Cuba	63.4%	27.5%	8.5%	0.3%	0.3%	0%
Belgium	61.2%	23.3%	9.3%	2.9%	3.3%	0%
Germany	59.5%	23.9%	7.5%	6.5%	2.6%	0.1%
Taiwan	56.8%	20.2%	15.0%	0.5%	6.2%	1.2%
Israel	55.4%	24.9%	15.4%	0.4%	3.8%	0.1%
UK	54.9%	27.7%	14.3%	1.3%	0.1%	1.7%
Canada	46.9%	34.0%	9.1%	1.5%	5.8%	2.7%
USA	41.4%	34.8%	18.3%	0.8%	4.7%	0%
total	**54.5%**	**27.1%**	**12.6%**	**1.8%**	**3.3%**	**0.8%**

41.4% of the characters in USA children´s TV are human, which places the USA eighth (last) in the international ranking.

Gender Perspective: Females and males according to the nature of the character

Of the female characters 317 (50.2%) are humans, 157 (24.8%) are animals, 148 (23.4%) are monsters or mythical creatures, 2 (0.3%) are plants or objects and 8 (1.3%) are robots or machines.

The male characters are represented in 419 cases (41.0%) as animals and in 367 cases (35.9%) as humans.

Monsters and mythical creatures with male gender are found in 154 characters (15.1%), 70 (6.8%) are robots and machines and 12 (1.2%) are plants or objects.
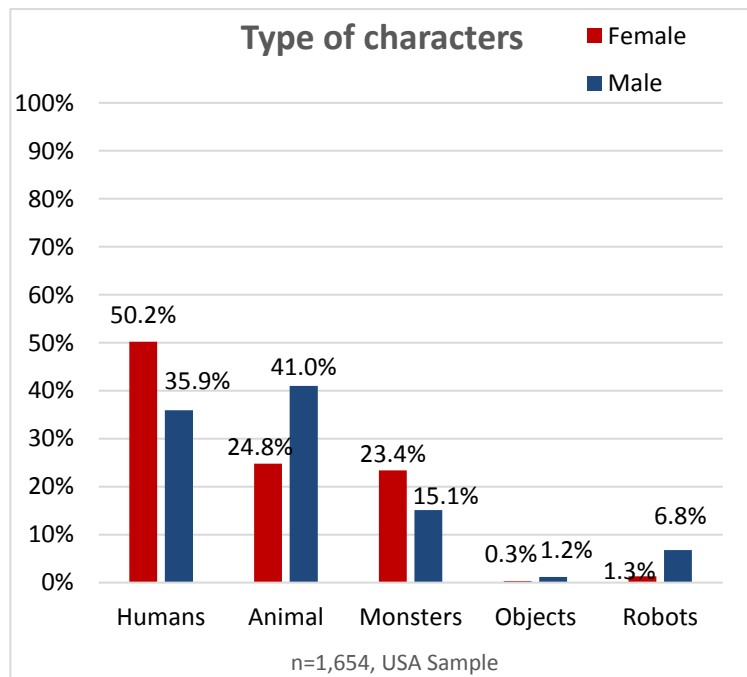
Type of characters (n=1,654, USA Sample)

Of the humans 317 (46.3%) are female and 367 (53.7%) are male. Of the animals 157 (27.3%) are female and 419 (72.7%) are male. Among the monsters or mythical creatures 148 (49.0%) are female and 154 (51.0%) are male. The female plants and objects are 2 (14.3%) and the male are 12 (85.7%). Among the robots or machines 8 (10.3%) are female and 89.7% or 70 are male.
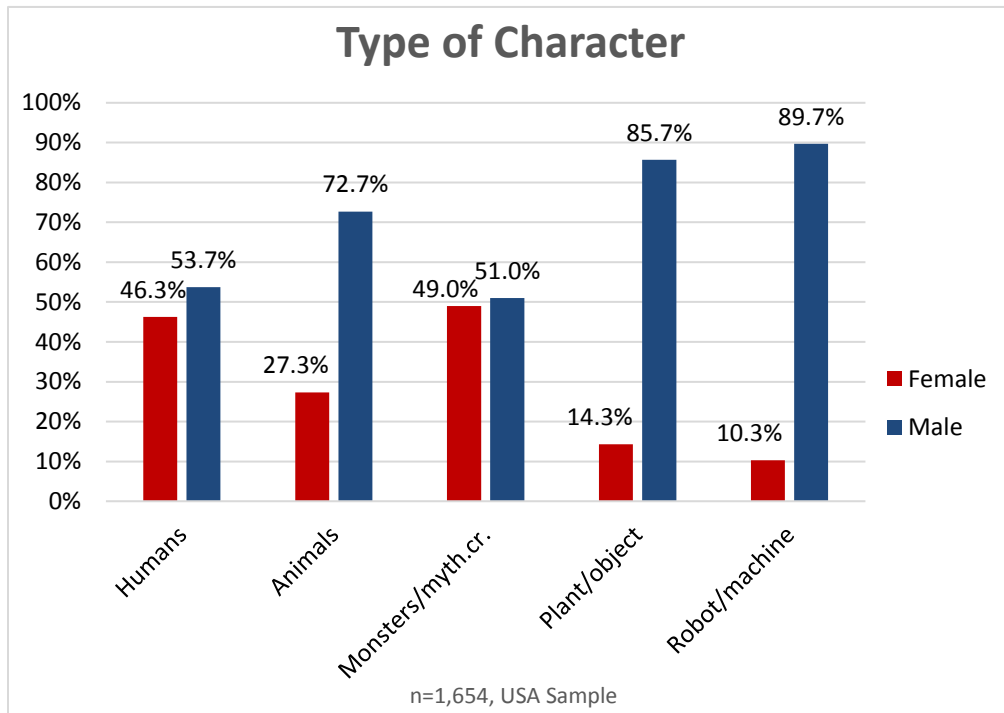
By comparing the results in the ten-year gap, we can see that in 2017 there are slightly fewer human characters (41.4%) and much more monsters (18.3%) than in 2007 (Humans: 47.3% / Monsters: 6.0%).

Of the humans 317 (46.3%) are female and 367 (53.7%) are male, whereas in 2007 there were 59.6% female and 45.2% male human characters. This highlights the negative ratio change regarding the gender perspective.

Female characters

Chart data (Female characters), stacked bars by channel:

	PBS	Cartoon Network	Disney Channel	Disney Jr.	Nick Jr.	Nickelodeon	Sprout
(top)	6.5%	1.8% / 0.9%	8.1%	1.9% / 8.7%	1.9% / 25.7%	1.9% / 16.6%	4.0% / 18.0%
	25.8%	66.1%	14.1%	47.7%	42.3%	13.0%	13.0%
		17.8%					
Humans	67.7%	13.4%	77.8%	41.7%	32.0%	68.5%	65.0%

Legend: ■ Humans ■ Animals ■ Monsters ■ Objects ■ Robots

Male characters

Chart data (Male characters), stacked bars by channel:

	PBS	Cartoon Network	Disney Channel	Disney Jr.	Nick Jr.	Nickelodeon	Sprout
(top)	2.2%	16.0% / 0.8%	2.3% / 6.2%	1.8% / 1.8% / 4.7%	13.1%	1.3% / 7.5%	6.2% / 2.8%
	64.5%	21.3%	29.5%	64.1%	26.9%	53.5%	26.2% / 20.0%
		32.8%			37.7%		
Humans	33.3%	29.1%	62.0%	27.6%	22.3%	37.7%	44.8%

Legend: ■ Humans ■ Animals ■ Monsters ■ Objects ■ Robots

The highest percentage of female human characters could be found on Disney Channel (77.8%), whereas the lowest percentage is on Cartoon Network (13.4%).

4.2 What is the general role in the story: Protagonist or Antagonist?

We coded the "general part" of the character in the narration of the story – is the main character good or evil? 1543 of the characters in USA fictional children´s programs are identified as protagonists. This corresponds to 93.3%. On the other hand, there are 109 antagonists that constitute 6.6% of the characters. Only 2 characters could not be grouped neither as aprotagonist nor as an antagonist (0.1%).

Of the protagonists counted, 612 (39.7%) are female and 931 (60.3%) are male. Among the antagonists 20 (18.3%) are female and 89 (81.7%). The 2 characters that cannot be classified as neither protagonists nor antagonists are both male.
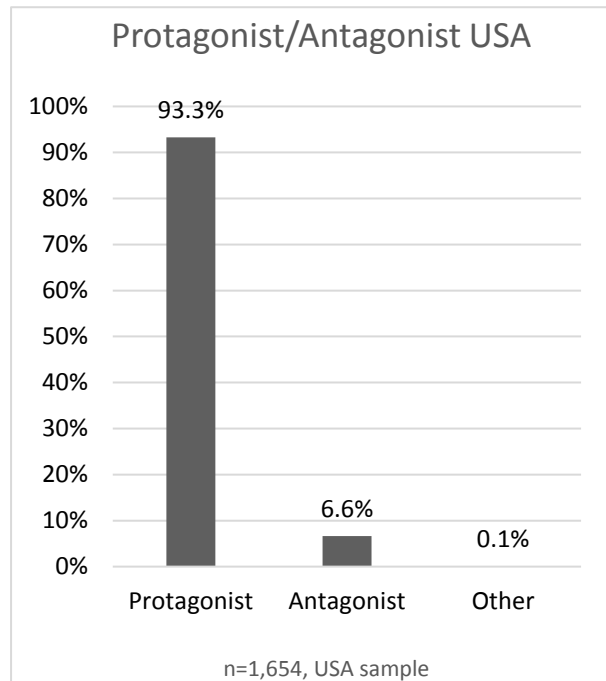
In 2007, 693 (82.3%) female characters appear as protagonists and 6.8% as antagonists. Ten years later there are 612 female protagonists, but with greater percentage because of the smaller sample (2017: 96.8%). The number of female antagonists in 2017 is cut by half (3.2%). The male protagonists were 1349 (79.3%) and now they are 931 with 91.1%. Ten years ago, there were 11.3% male antagonists, now there are 8.7%.

Protagonist/Antagonist USA

Protagonist: 93.3%
Antagonist: 6.6%
Other: 0.1%

n=1,654, USA sample

Protagonist/Antagonist USA

Protagonist: Female 96.8%, Male 91.1%
Antagonist: Female 3.2%, Male 8.7%
Other: Female 0.0%, Male 0.2%

n=1,654, USA sample
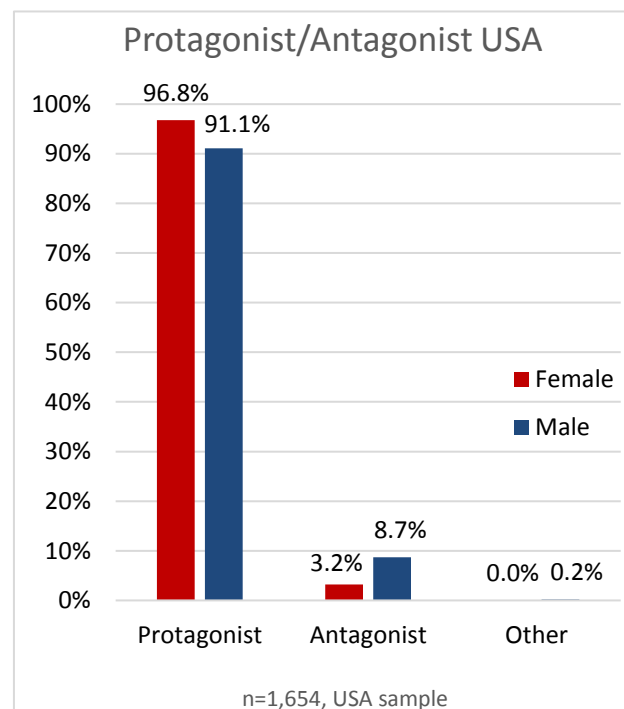
International comparison

	Protagonist	**Antagonist**
Taiwan	78.2%	17.6%
Belgium	88.4%	10.6%
Germany	33.5%	9.9%
Cuba	90.4%	9.6%
Israel	90.3%	9.5%
UK	92.3%	7.6%
USA	93.3%	6.6%
Canada	95.0%	4.8%
total	**84.4%**	**9.1%**

With a percentage of 6.6% of antagonists in children´s TV, USA takes the seventh place in the international comparison and is below the average.

In comparison to 2007 the percent rate of antagonists in the USA children's television has decreased with almost 4 % (2007: 10.3% / 2017: 6.6%), which corresponds to the decrese of the whole international average (2007: 13.7% / 2017: 9.1%).

4.3 In what kind of constellation does the main character act?

To analyse in what kind of constellation the main character is acting, the following questions was asked: Does he/she work appear, in a group or a duo? 36 of the characters (2.2%) are integrated into the plot as loners. 97 of the coded characters are part of a duo (5.8%). 1,521 of the characters (92.0%) and thus the majority are part of a group or a team.

Constellation of the characters / USA

n=1,654, USA Sample
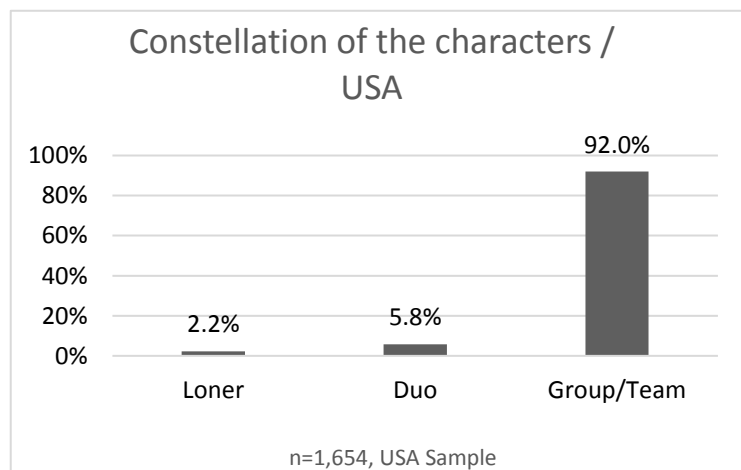
In comparison to 2007 we can observe a considerable increase in the groups and teams (2007: 74.5% / 2017: 92%) and a significant decrease in the other two categories - "duo" (2007: 14.1% / 2017: 5.8%) and loners (2007: 9.4% / 2017: 2.2%).

International comparison

|	Loner	Duo	Group / Team
USA	2.2%	5.9%	92.0%
UK	9.5%	15.0%	75.4%
Canada	11.4%	16.4%	71.4%
Belgium	9.1%	24.7%	66.2%
Germany	16.2%	17.4%	63.3%
Cuba	20.2%	22.5%	57.3%
Israel	15.1%	31.1%	53.4%
Taiwan	17.3%	25.7%	53.1%
total	**11.7%**	**20.0%**	**67.5%**

92% of the main characters in USA children´s TV are presented as part of a group or a team, which makes the USA the leader on an international scale. Therefore, we can state that the overall international presentation in groups or teams has risen (2007: 56.5% total), followed by the USA becoming the leader in the international list (2007: second with 74.5%).

Gender Perspective: Males are loners

Of the female characters 6 (0.9%) are loners, 30 (4.7%) are in duos and the majority of 596 (94.3%) are a part of a group. 30 (2.9%) of the male characters are loners, 67 (6.6%) are in a duo and 925 (90.5%) are a part of a group.

In comparison to the results in 2007, there is a big decrease in the percentages

Constellation of the characters / USA

of "loners" (F: 5.9%-0.9%; M: 11.0%-2.9%) and "duos" (F: 15.1%-4.7%; M: 13.9%-6.6%). Both females und males are more often in groups (F: 76.6%; M:73.3 % in 2007), in 2017 female and male groups are above 90%.
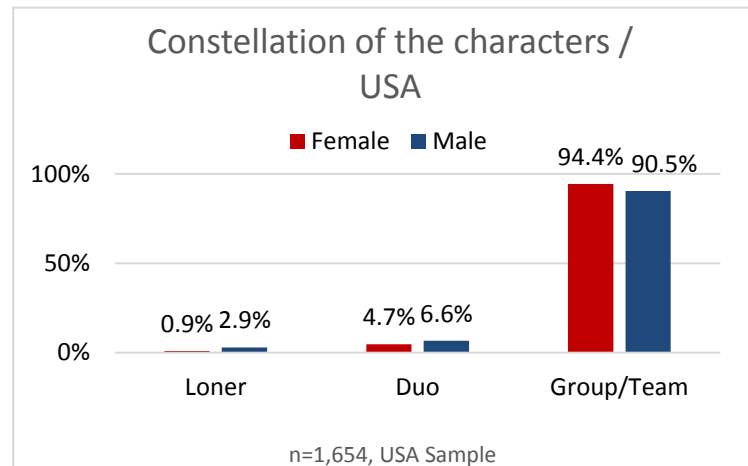
The broadcaster with the highest percentage of female loners is PBS (3.2%), but overall there are more male loners, for example on Nickelodeon (5.0%). Interestingly, Sprout had 35.0% in terms of male loners in 2007 and in 2017 there are none offered by the broadcaster (0.0%).

Male characters

Legend: Loner · Duo · Group (Team)

PBS: 84.5%, 13.3%, 2.2%
Cartoon Network: 88.1%, 8.6%, 3.3%
Disney Channel: 82.9%, 13.2%, 3.9%
Disney Jr.: 96.5%, 3.5%
Nick Jr.: 91.6%, 6.9%, 1.5%
Nickelodeon: 90.6%, 4.4%, 5,0%
Sprout: 95.2%, 4.8%

Female characters

Legend: Loner · Duo · Group (Team)

PBS: 90.3%, 6.5%, 3.2%
Cartoon Network: 96.4%, 2.7%, 0.9%
Disney Channel: 89.6%, 8.9%, 1.5%
Disney Jr.: 100.0%, 0.0%
Nick Jr.: 92.7%, 5.2%, 2.1%
Nickelodeon: 92.6%, 7.4%
Sprout: 96.0%, 4.0%
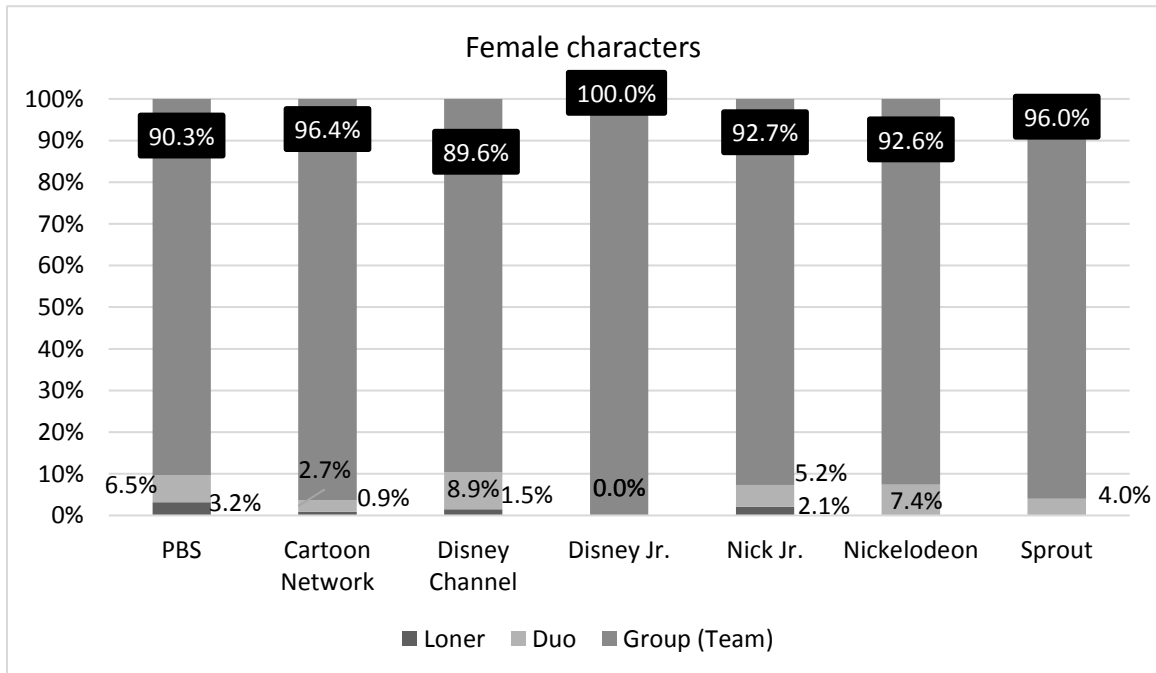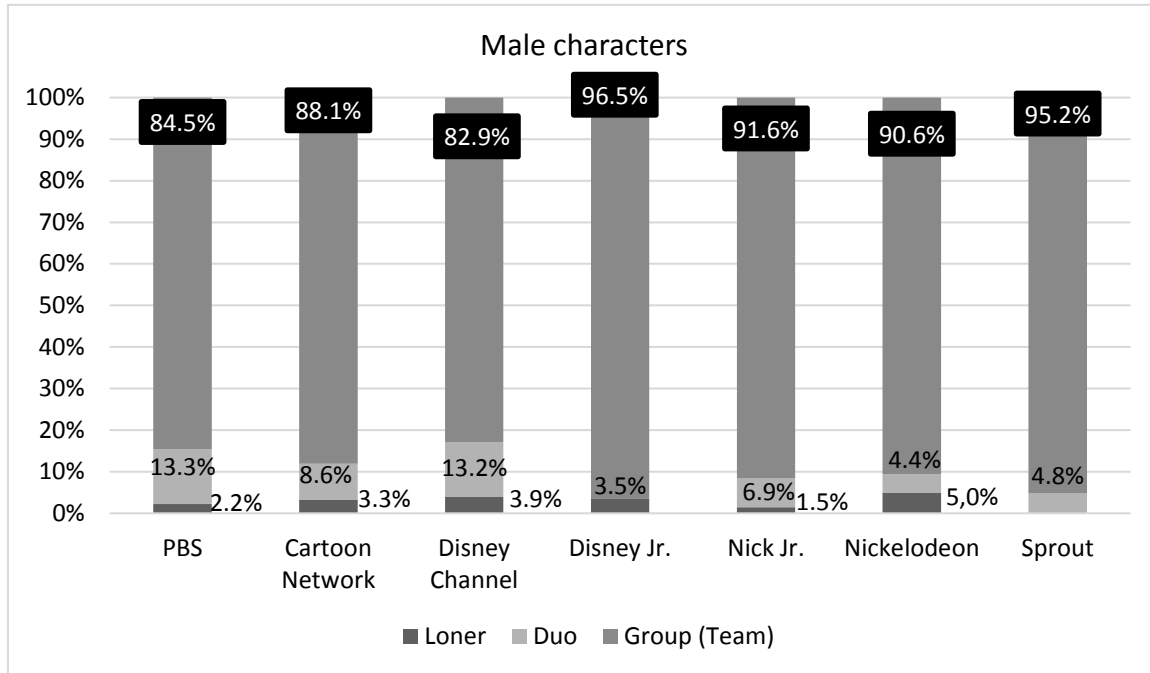
4.4 Which hierarchical position does the character assume in the show?

This question concerns the characters' role in the social context. Who is dominant in the relationship and solution of the problem? Is there a clear leading character? 1,342 (81.1%) of the characters appear as equals, regarding hierarchical positions. 216 (13.1%) are leaders, 94 (5.7%) are part of a following and the position of 1 character (0.1%) is not clearly identifiable.

Hierarchical position of the characters / USA

n=1,654, USA Sample
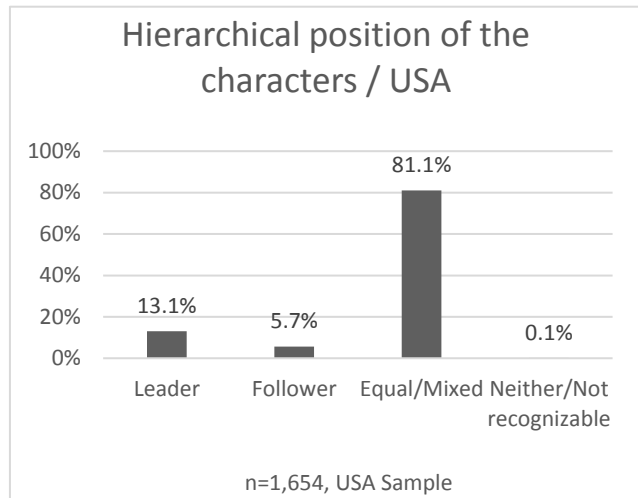
In comparison to the results in 2007, equality among the characters has greatly increased (2007: 61.2% / 2017: 81.1%) and reciprocally, the followers have decreased (2007: 10.2% / 2017: 5.7%). The percentage of the "leaders" is almost the same (2007: 13.0% / 2017: 13.1%). There are almost no characters, whose position cannot be recognized, compared to the results from ten years ago (2007: 15.6%/2017: 0.1%).

International comparison

	Leader		Follower		Equal
Cuba	54.2%	Cuba	32.7%	USA	81.2%
Israel	38.9%	Israel	25.9%	Canada	76.8%
Taiwan	27.7%	Taiwan	23.8%	Germany	67.1%
UK	25.6%	Belgium	19.4%	UK	66.0%
Belgium	22.5%	Germany	6.5%	Belgium	58.0%
Canada	13.9%	UK	6.2%	Israel	31.3%
USA	13.1%	Canada	6.1%	Taiwan	29.1%
Germany	8.0%	USA	5.7%	Cuba	10.7%
total	**24.2%**	**total**	**14.4%**	**total**	**56.3%**

In 13.1% of the cases the main character is the leader of the group. In 5.7% of the cases the character is a follower. USA takes the first place, considering the representation of the equal hierarchical position with 81.2%.

The international comparison in the ten-year gap shows a 5% average rise of the leaders and the equals (2007: Leaders – 20.5%; Equals – 47.7% / 2017: Leaders – 24.2%; Equals – 56.3%). The followers have decreased a bit (2007: 15.5%; 2017: 14.4%).

Gender Perspective: hierarchical position/social context

The female characters are in 57 (9.0%) of the cases leaders, 35 (5.5%) are followers, 539 (85.3%) are equal or mixed and only 1 (0.2%) is not identifiable.

The male characters are in 159 (15.6%) of the cases leaders, 59 (5.8%) are followers and 803 (78.6%) are equal or mixed.
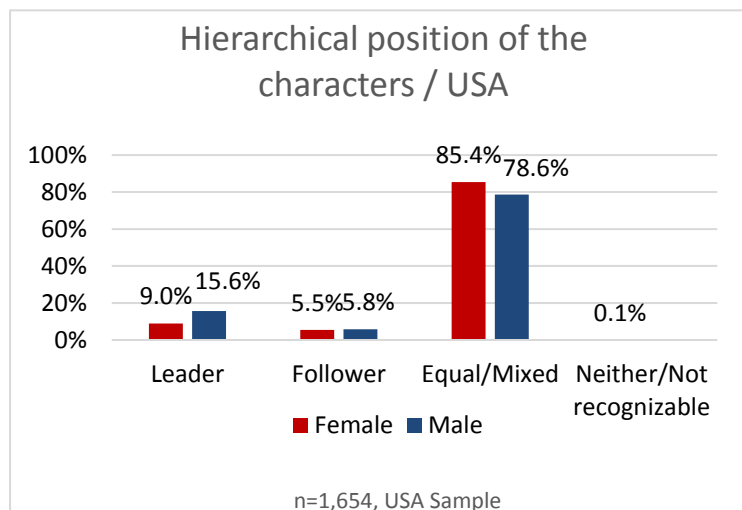
Hierarchical position of the characters / USA

n=1,654, USA Sample

23

In comparison to 2007, we can confirm that the ratios are the same – more male leaders (the gap of 2017 is by 5% greater than that of 2007). Among the second category there was about 2% difference between male and female followers in 2007 and in 2017 the percentages are almost the same. The equals or mixed have an overall rise, but the newest results show a bigger gap (2007: Female 61.9%, Male 62.3% / 2017: Female 85.4%, Male 78.6%).
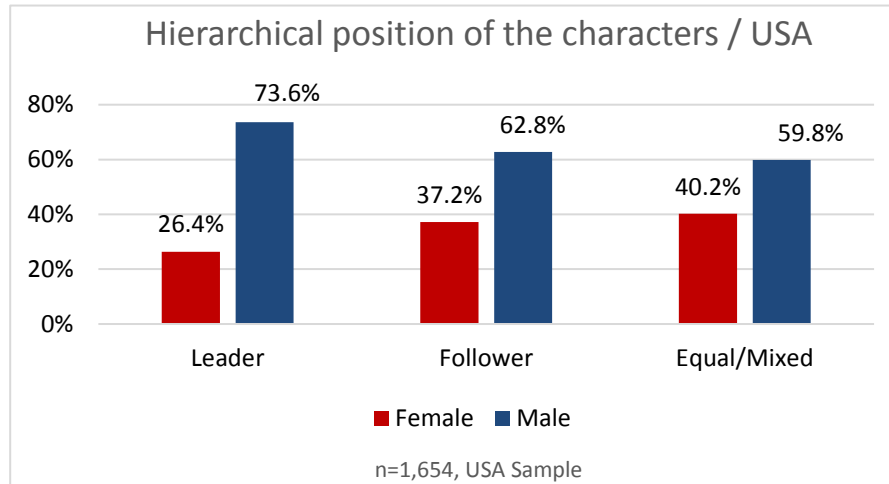
Of the leaders 57 (26.4%) are female and 159 (73.6%) are male. Among the followers the females are 37.2% (n=35) and the male characters make up 62.8% (n=59). 539 females are equals (40.2%), whereas 59.8% of the category consists of male characters (n=803). There are only 1 character, whose hierarchical position could not be recognized and it is female (100%).

Female characters

Legend: ■ Leader ■ Follower ■ Equal/Mixed ■ Neither

Broadcaster	Leader	Follower	Equal/Mixed	Neither
PBS	19.4%	6.5%	74.1%	
Cartoon Network	4.5%	16.1%	78.5%	0.9%
Disney Channel	9.6%	1.5%	88.9%	
Disney Jr.	8.7%	5.8%	85.5%	
Nick Jr.	11.3%	1.0%	87.7%	
Nickelodeon	3.7%	5.6%	90.7%	
Sprout	11.0%	3.0%	86.0%	

Male characters

Legend: ■ Leader ■ Follower ■ Equal/Mixed

Broadcaster	Leader	Follower	Equal/Mixed
PBS	29.5%		70.5%
Cartoon Network	8.2%	7.4%	84.4%
Disney Channel	17.1%	0.8%	82.1%
Disney Jr.	11.2%	12.4%	76.4%
Nick Jr.	10.0%	1.5%	88.5%
Nickelodeon	31.4%	1.3%	67.3%
Sprout	15.2%	10.3%	74.5%
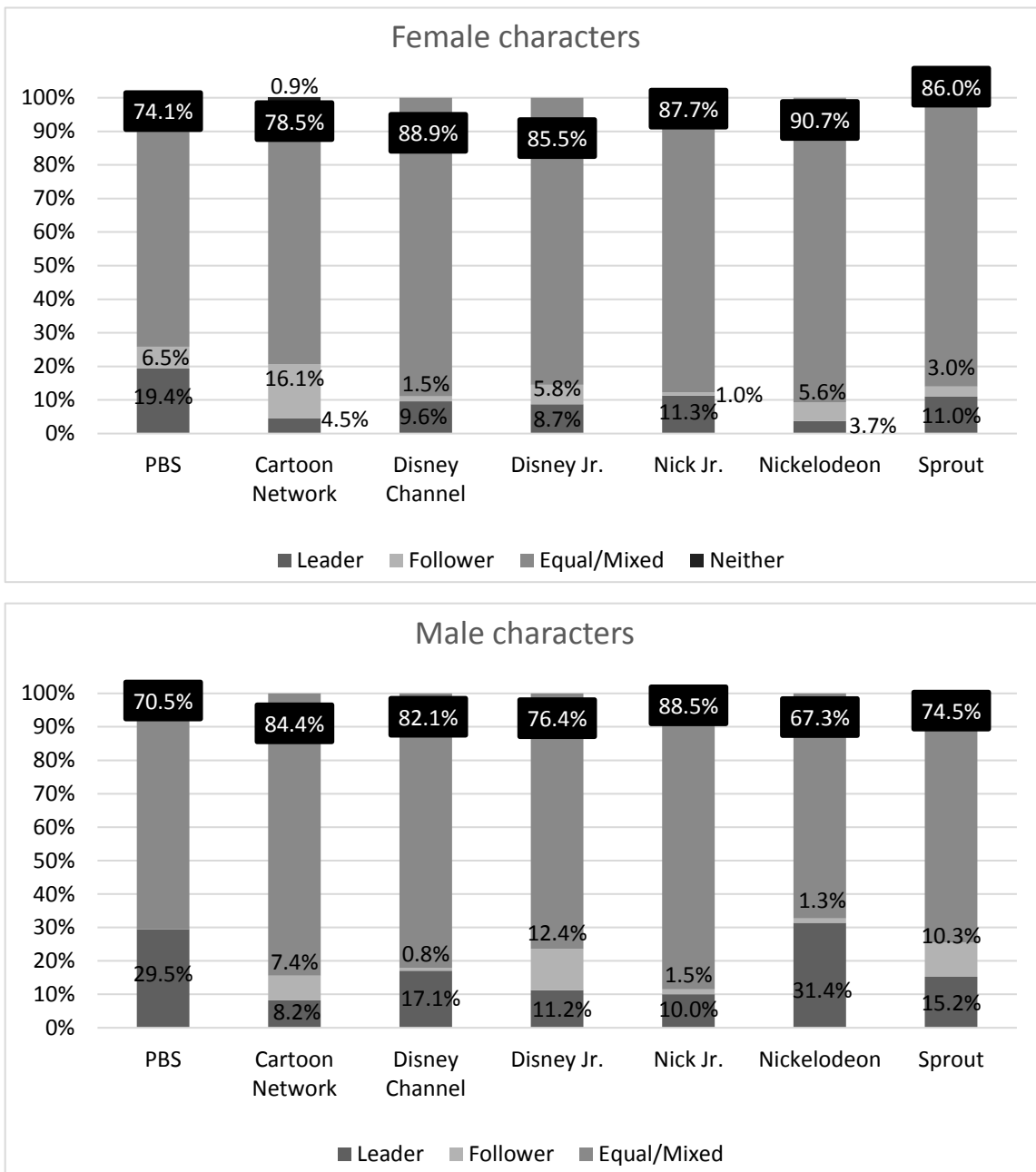
The broadcaster with the highest percentage of female leaders is PBS (19.4%), which has made a great progress from the last results in 2007 (7.7%). The highest share of male leaders (31.4%) is on Nickelodeon and it is almost six times more than those in 2007 (5.5%).

4.5 In which kind of surrounding is the character first shown?

To analyze the surroundings in which the characters first appear in the show, the opening songs or titles have not been taken into account.

The most common location at which the character is introduced in the plot is in a private place. 869 (52.5%) of the recorded characters of this category appear here for the first time. Public and work place ranks with 427 (25.8%) second.

195 (11.8%) are introduced in the nature and 162 (9.8) are at school.

Just 1 character (0.1%) is in other surrounding.

Introduction to the plot / USA


n=1,654, USA Sample
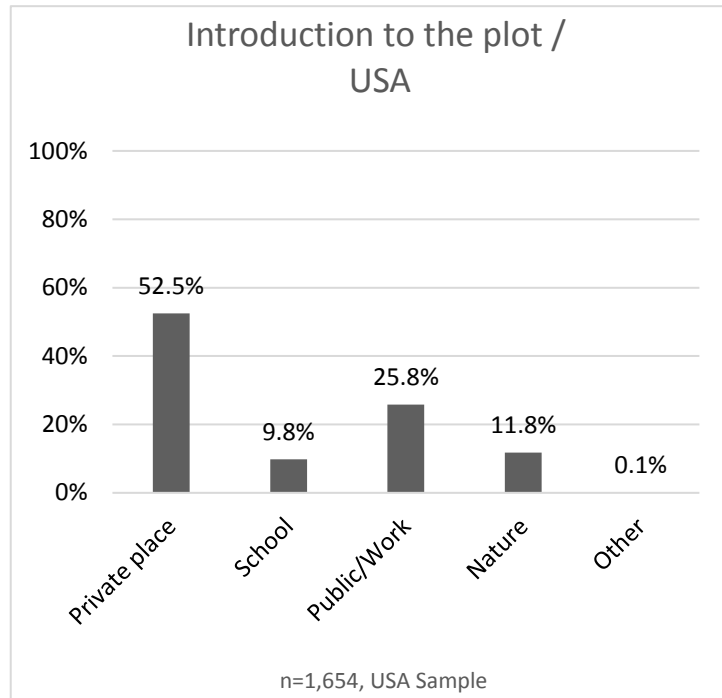
There are almost no differences, when it comes to comparing the ratios of the context of the introduction with those back in 2007. However, the percentages are a bit different (2007 – Private place: 38.9%; School: 12.4%; Public/Work: 24.9%; Nature: 22.2%; Other: 1.7%).

Gender Perspective: Females appear more in private places and in school, males more often in public/work places and in nature

357 (56.5%) of the female characters in the sample are introduced to the plot in private settings, 78 (12.3%) are in school, 142 (22.5%) are in public places or at work and 54 (8.5%) are in the nature.

The one character left is in another surrounding (0.2%).

n=1,654, USA Sample

26
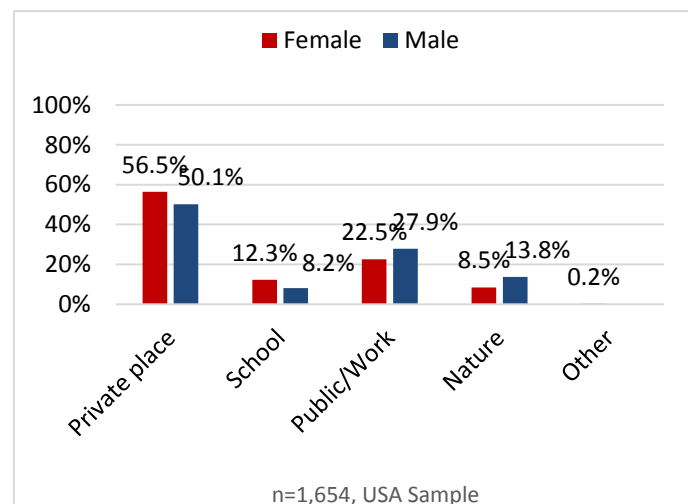
2 (50.1%) of the male characters are first introduced at a private place, 84 (8.2%) are in school, 285 (27.9%) are in public or at work and 141 (13.8%) are in nature.

In comparison to the results in 2007, we can state that the female/male relations are the same in terms of introduction in a private place and public/work place. The gap in ´public/work´ has decreased (gap in 2007: 9%; in 2017: 5%), whereas the "nature" gap (2007: 2%; 2017: 5%) has increased.

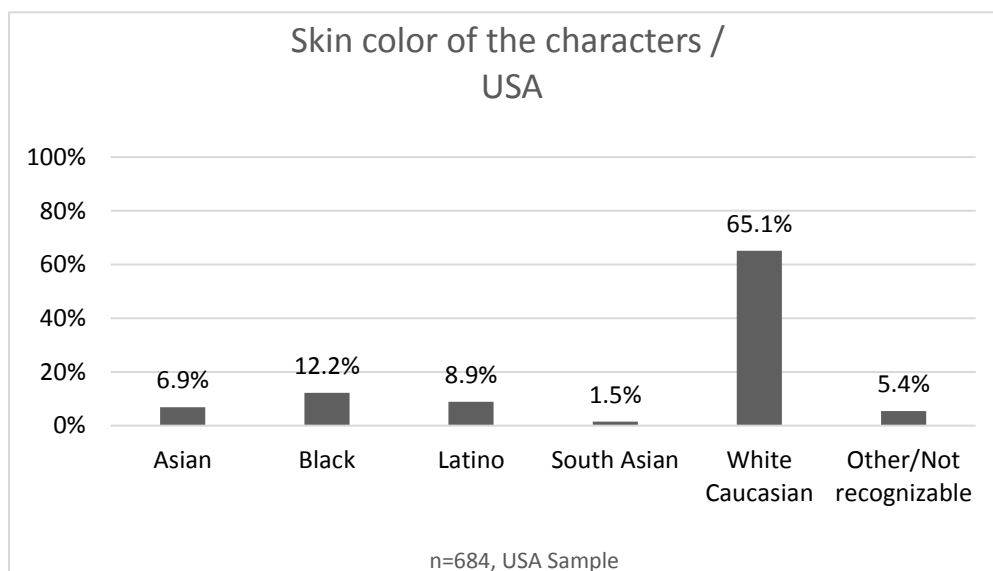## 5. The analysis of the Human Characters

The characters which were coded as humans were furthermore coded according to their skin color, hair color, their age and their physique as well as to possibly existing disabilities.

5.1 What skin color or general ethnic affiliation can we see?

For coding the skin colors and ethnicities of the main human characters, the shape of the characters' eyes, their dark or tanned skin, etc. were taken into account.

47 (6.9%) of the human characters showed Asian physical traits. Black characters are found in 83 (12.2%) characters of the sample. 61 (8.9%) are classified as Latin-American and 10 (1.5%) as South Asian.

The majority, with 445 characters (65.1%), are Caucasian. 37 characters (5.4%) are classified as "Other" or are not identifiable.

Skin color of the characters / USA

Asian	6.9%
Black	12.2%
Latino	8.9%
South Asian	1.5%
White Caucasian	65.1%
Other/Not recognizable	5.4%

n=684, USA Sample

27

International comparison

Asian		Black		Latin-American		White	
Taiwan	47.1%	UK	16.7%	Cuba	15.4%	Germany	83.0%
Cuba	15.4%	USA	12.2%	Taiwan	9.3%	Belgium	77.9%
USA	6.9%	Israel	9.9%	USA	8.9%	UK	74.8%
Israel	4.0%	Belgium	8.6%	Belgium	6.9%	Canada	74.4%
Canada	2.1%	Germany	7.8%	Israel	6.1%	Israel	66.4%
UK	2.1%	Cuba	7.4%	Germany	2.1%	USA	65.2%
Belgium	2.0%	Canada	5.4%	Canada	1.5%	Cuba	61.2%
Germany	1.9%	Taiwan	2.7%	UK	1.4%	Taiwan	28.7%
total	7.6%	total	9.7%	total	5.3%	total	69.1%

65.2% of the characters presented in USA children´s TV are white Caucasians, 12.2% are Blacks, 8.9% are Latin-Americans and 6.9% are Asians. On an international scale, the representation of white Caucasians is below the average, which constitutes the sixth position of the USA in terms of featuring white main characters. USA is above the international average, concerning the representation of Latin-American and Blacks. On the other hand, the percentage of the USA is below the international average, when it comes to Asians.
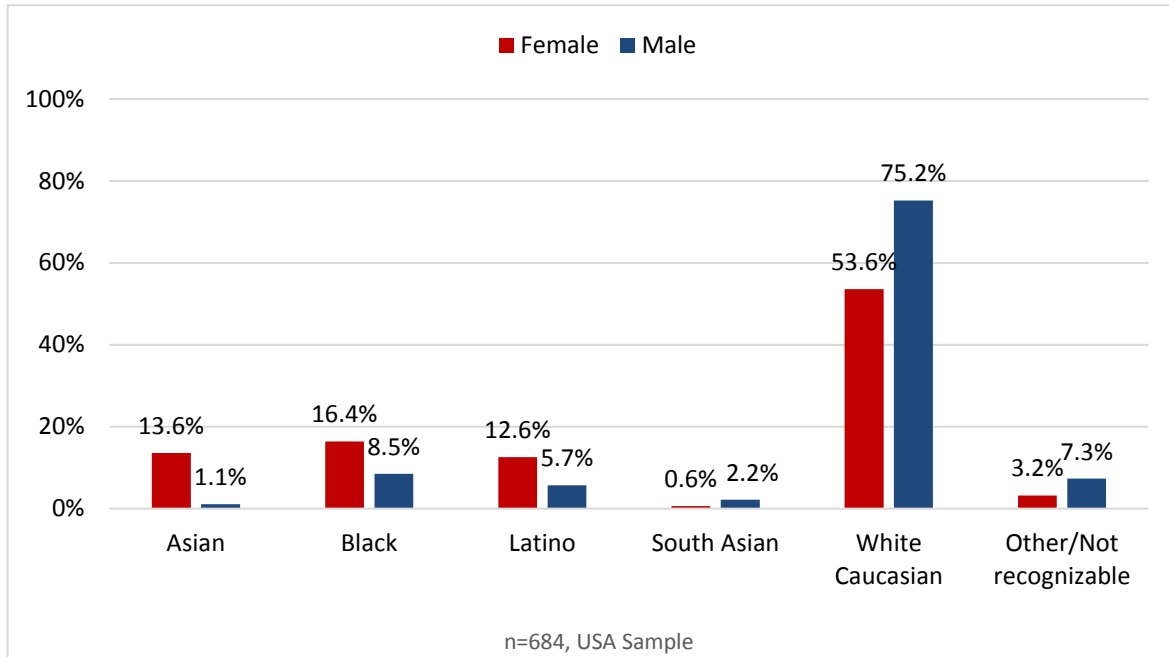
In comparison to the results in 2007, there is a 2.6% decline in terms of the white characters (2007: 67.8%) and almost 4% decrease in terms of the Asians (2007: 10.2%). The amount of Latin-American characters has changed but not immensely (2007: 7.1%).

The decline in the number of represented white characters can be explained with the overall decline of the category on an international scale (int. average of Whites – 2007: 72.2%; 2017: 69.1%). USA has lost its second position, concerning the Latin-American characters and is now taking the third place.

Gender perspective: Blacks are twice as often females

Out of the female characters 170 (53.6%) are white Caucasians, 52 (16.4) are Blacks, 40 (12.6%) are Latin-American, 43 (13.6%) are Asian, 2 (0.6%) are South Asian and 10 (3.2%) are not recognizable.

The male characters comprise 275 (75.2%) white Caucasians, 31 (8.5%) Blacks, 8 (2.2%) South Asian, 4 (1.1%) Asians, 21 (5.7%) Latin-American and 27 (7.3%) other or not recognizable.

In comparison to the results of 2007 there are two conspicuous differences. Male Asian characters have declined 9 times (2007: 9.9%) and the situation by the black characters has undergone a change of places – in 2007 the male were 3% more than the female black characters, now the female black characters are almost twice as more as the male black characters (Blacks – M: 13.0% / F: 10.9% in 2007; M: 8.5% / F: 16.4% in 2017).

29

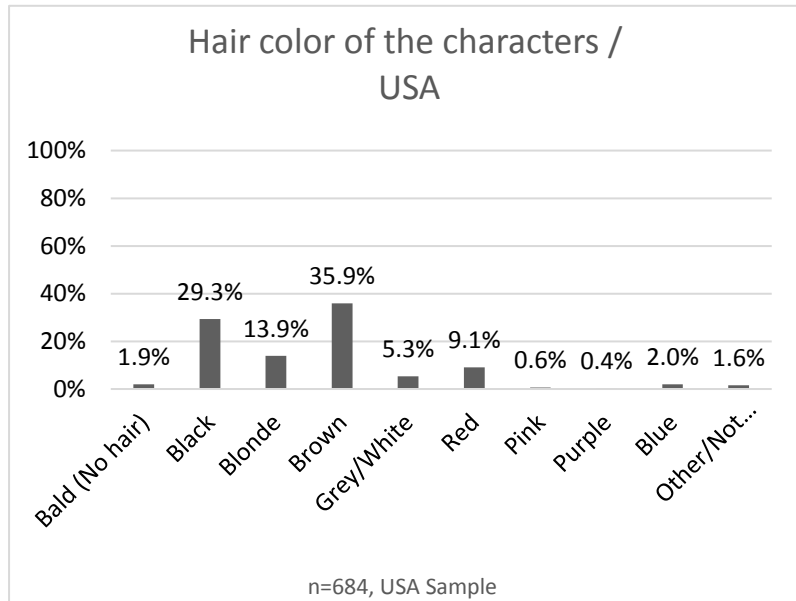## Female characters
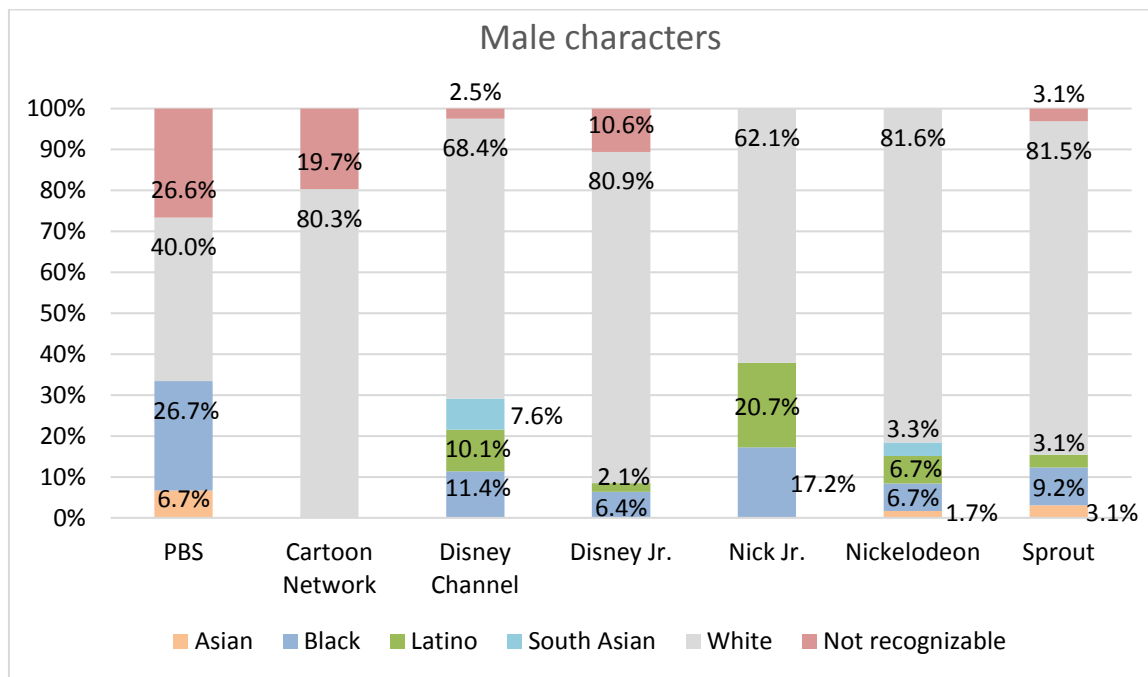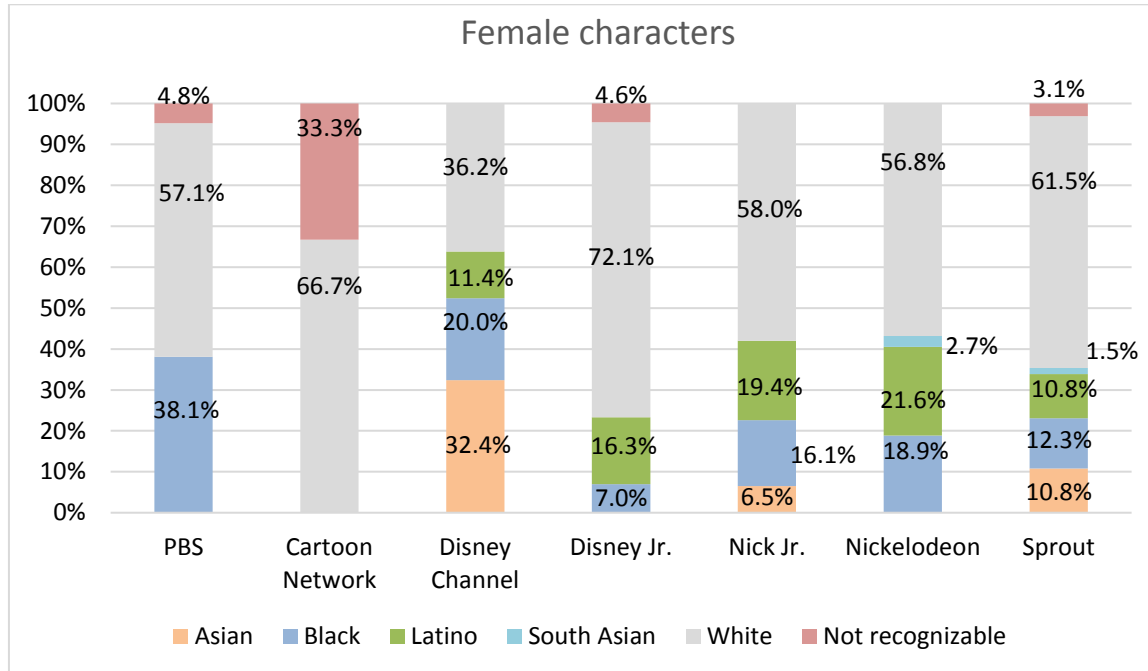
Male characters

The broadcaster with the highest percent rate of female white characters is Cartoon Network (66.7%) and the most male white characters could be seen on Nickelodeon (81.6%). This broadcaster is also the one, that offers the most female Latino characters (21.6%). On PBS appear the majority of both male and female black characters (F: 38.1%/ M: 26.7%).

The most female Asian and male South Asian characters are on Disney Channel (Female Asian: 32.4%/ Male South Asian: 7.6%)

In comparison to the results ten years ago, Disney Channel has almost 6 times more female Asian characters than in 2007 (6.3%).

5.2 What hair color do the main characters have?

The characters' hair colors can be divided up into 10 different categories.13 (1.9%) characters do not have any hair, 200 (29.3%) characters have black hair, 95 (13.9%) are blonde-haired and 245 (35.9%) have brown hair. 36 (5.3%) have grey or white hair, 62 (9.1%) have red hair, 4 (0.6%) are pink-haired, 3 (0.4%) have purple hair and 14 (2.0%) are blue-

Hair color of the characters / USA

Category	Percentage
Bald (No hair)	1.9%
Black	29.3%
Blonde	13.9%
Brown	35.9%
Grey/White	5.3%
Red	9.1%
Pink	0.6%
Purple	0.4%
Blue	2.0%
Other/Not…	1.6%

n=684, USA Sample

haired. 11 (1.6%) could not be categorized in any of the categories.

During the 10 years the brown-haired, black-haired and grey-haired characters have increased (Brown: 33.1% / Black: 25.7% / Grey: 3.2% in 2007). The rate of the blonde-haired characters has stayed almost exactly the same (13.8% in 2007). Bald and red-haired characters have declined (Bald: 3.9% / Red: 9.9% in 2007). Pink, purple and blue hair colors were not present in the 2007 study, which could partly explain the smaller percentage of the "other" category in 2017 (Other: 10.5% in 2007).

Gender perspective: Two times more red-haired female characters

Out of the female characters there is no character without hair (bald ones – 0.0%), 100 (31.5%) have black hair, 53 (16.7%) have blonde hair and 95 (30.0%) have brown hair. Grey- or white-haired are 13 female characters (4.1%), red-haired are 40 female characters (12.6%), 4 (1.3%) have pink hair, 2 (0.6%) have purple hair and 9 (2.8%) have blue hair. Only one female character is in the "other" category (0.3%).

The male characters are with 13 (3.6%) with no hair, 100 (27.2%) have black hair, 42 (11.5%) have blonde hair and 150 (41.0%) have brown hair. 23 male characters are grey- or white-haired (6.3%), 22 are red-haired (6.0%), 1 is purple-haired (0.3%), 5 have blue hair (1.4%) and 10 characters have another hair color (2.7%).

Hair color of the characters

n=684, USA Sample ■ Female ■ Male
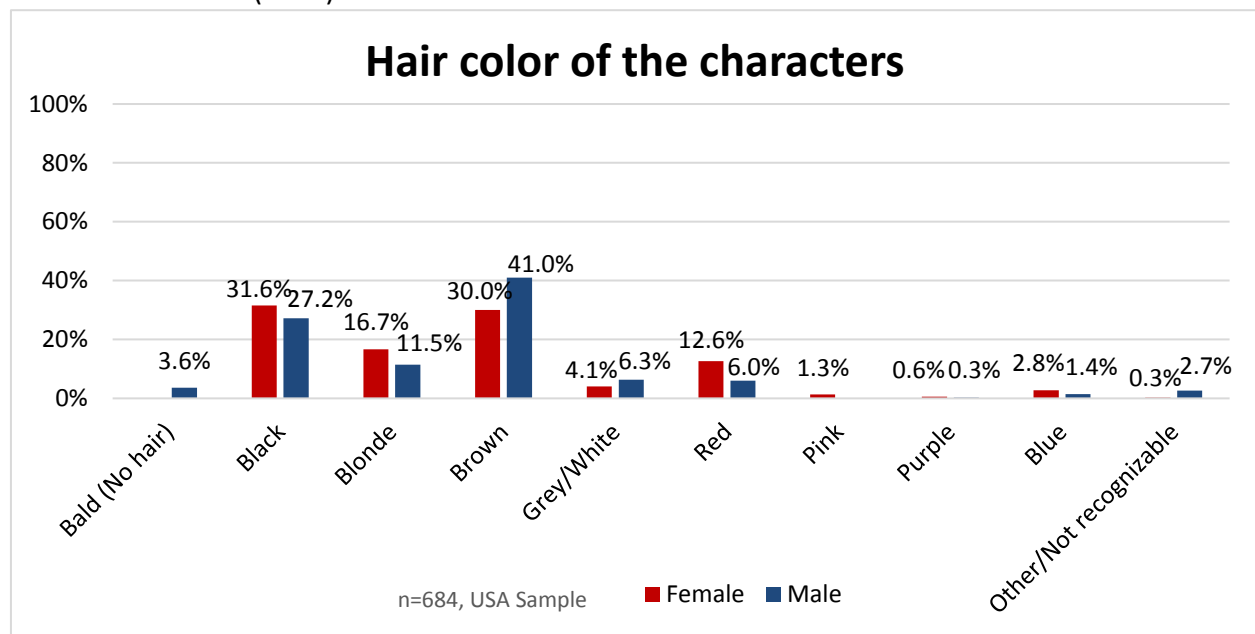
The red-haired characters are two times more female than male. There are no big differences between the results from 2007 and the new ones. The bald male characters in 2017 are as half as many as those in 2007 (2007: 6.4%/2017: 3.6%).

Female characters
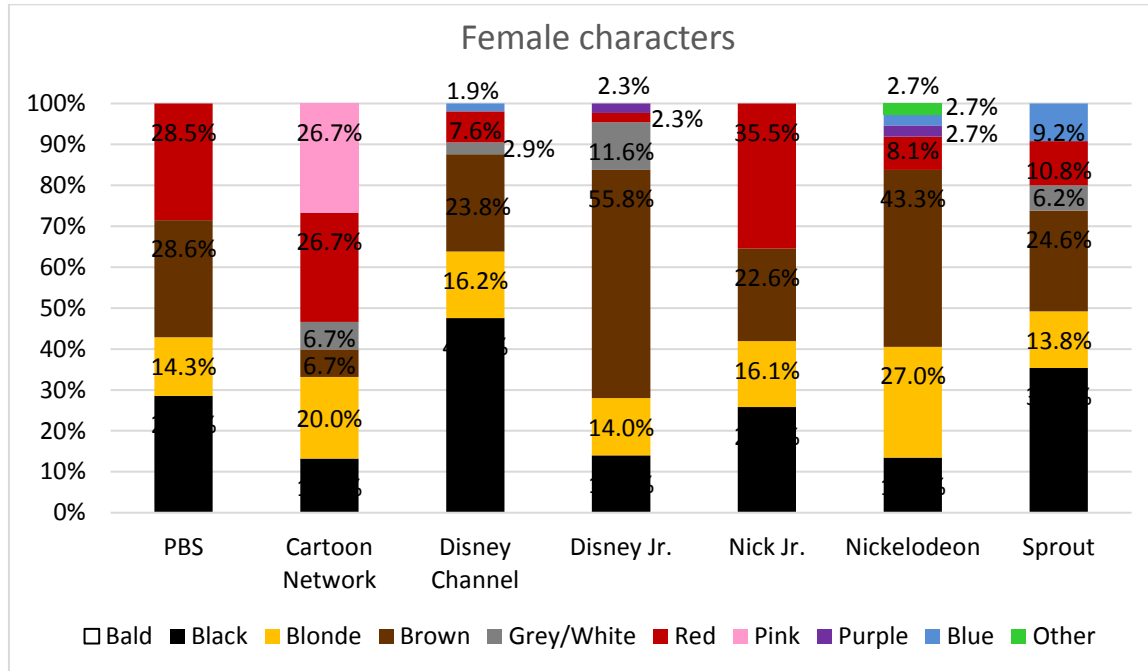
The highest percentage of Black-haired females was on Disney Channel (47.6%), and the highest percentage of brown-haired girls had Disney Jr. (55%). The highest share of red-haired females was shown on Nick Jr. (35.5%).

Male characters
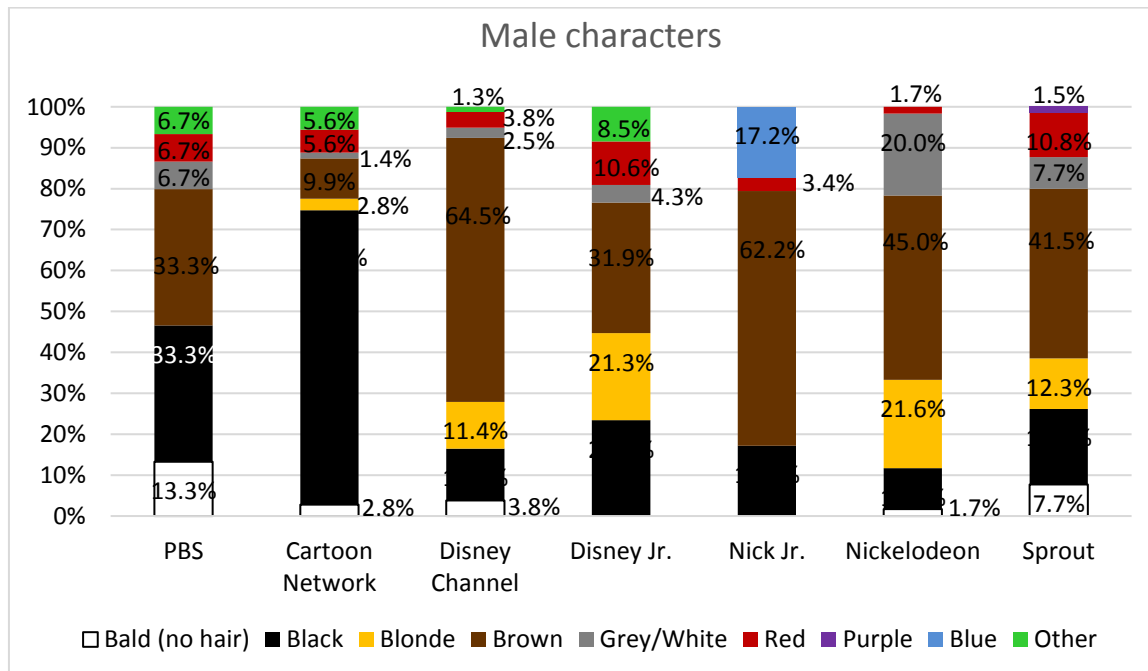
Among the males, a 71.9 % of them were black-haired on Cartoon Network. The highest percentage of brown-haired males was broadcast on Disney Channel (64.5%).

The highest share of blond males was shown by Nickelodeon (21.6%), the highest share of red-haired by Sprout (10.8%). The highest percentage of bald males was found on PBS (13.3%).

5.3 What age are the characters?

The coding of age is based on outward appearance and content. Adult, if they have recognizable activities such as working, driving or have the role of a mother or a father. Elderly, if they have recognizable traits such as the role of a grandma or a grandpa or if they walk with a cane, for example. In terms of age two larger groups could be found in the sample: 305

Age of the characters / USA

| Baby/Toddler | Child | Youth/Teenager | Adult | Elderly | Not recognizable |
| 0.4% | 44.7% | 33.7% | 19.3% | 1.9% | |

n=684, USA Sample

(44.7%) are children and 230 (33.7%) are teens. Only 3 (0.4%) are babies, 132 (19.3%) are adults and only 13 (1.9%) are elderly.
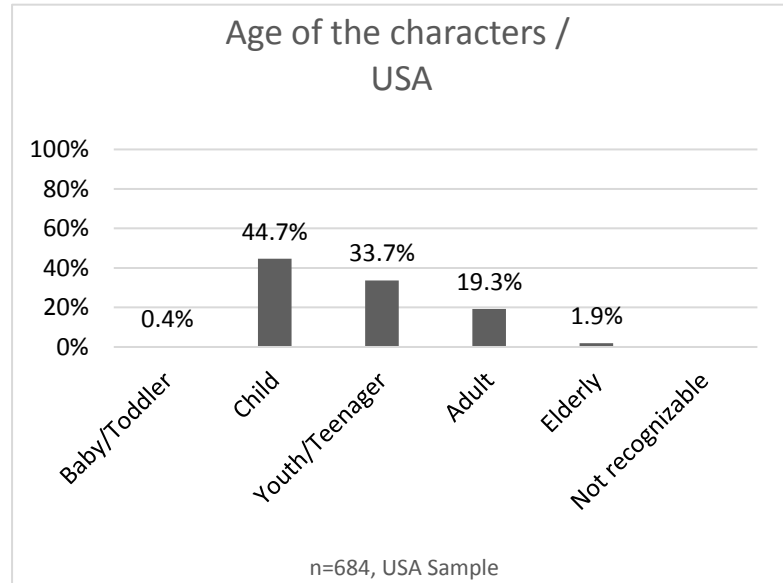
In comparison to the study in 2007 the number of child characters have increased (2007: 31.2%). Therefore, the percentages of other categories have declined – teenager characters appear by 4% less (2007: 37.8%), adult characters by 10% less (2007: 28.4%). There is almost no difference in the senior characters (2007: 1.8%) and in the toddler characters (2007: 0.3%).

International comparison

Baby/ Toddler		Child		Youth/ Teenager		Adult		Elderly	
Germany	1.8%	Canada	49.5%	Israel	47.9%	UK	31.5%	UK	4.9%
Cuba	1.6%	USA	44.7%	UK	42.6%	Taiwan	29.4%	Taiwan	3.6%
Canada	0.8%	Cuba	42.2%	Belgium	42.1%	Israel	29.0%	Belgium	3.2%
UK	0.7%	Germany	39.4%	Germany	36.5%	Cuba	28.2%	Israel	2.5%
Taiwan	0.5%	Taiwan	36.9%	USA	33.7%	Germany	20.7%	USA	1.9%
USA	0.4%	Belgium	32.2%	Canada	27.3%	Belgium	20.1%	Germany	1.6%
Israel	0.1%	Israel	20.2%	Taiwan	27.2%	Canada	19.6%	Canada	0.9%
Belgium	0.1%	UK	15.4%	Cuba	27.2%	USA	19.3%	Cuba	0.8%
total	0.6%	total	31.3%	total	38.2%	total	25.1%	total	2.8%

44.7% of the characters presented in USA children´s TV are children, i.e. USA is considerably above international average. 33.7% are teens and 1.9% are elders, both being below the average. Adult characters constitute 19.3%, which is almost 6 percent below the average. Concerning the baby characters, USA is also below the average with its 0.4%.

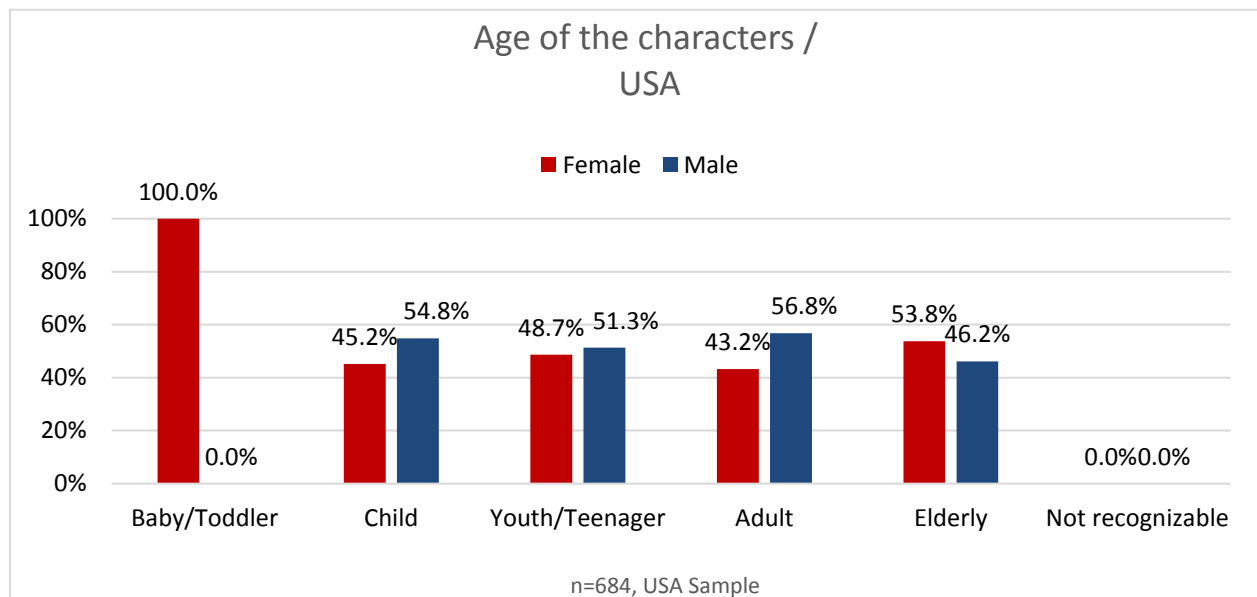**Gender perspective: Girls are more often Teenagers, adults are more often male**.
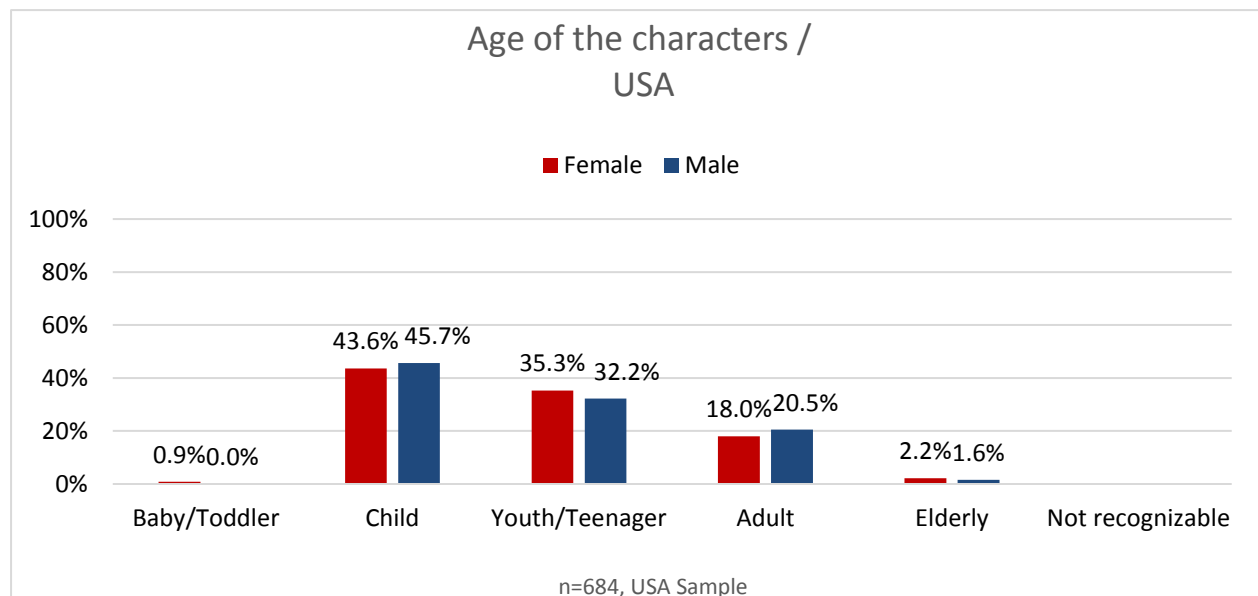
Age of the characters / USA

n=684, USA Sample

Out of the female characters 3 (0.9%) are babies or toddlers, 138 (43.5%) are children, 112 (35.3%) are teens, 57 (18.0%) are adults and 7 (2.2%) are seniors.

167 male characters (45.6%) are children, 118 (32.2%) are teens, 75 (20.5%) are adults and 6 (1.6%) are elders. There are no male baby characters.

The tendency stated in the title of the paragraph is the same as in 2007, but somewhat weakened. In 2007, the female teens were 43.0% and the male teens were 34.6%, whereas in 2017 both have a lower percent rate (F: 35.3 %; M: 32.2%). This parallel decrease shows another ratio between them, whereby the difference of almost 10% in 2007 is now only 3%. Among the adults both male and female have decreased and here the ratio is also weaker (2007: M: 33.8%; F: 20.3%).

Age of the characters / USA

■ Female ■ Male

- Baby/Toddler: Female 100.0%, Male 0.0%
- Child: Female 45.2%, Male 54.8%
- Youth/Teenager: Female 48.7%, Male 51.3%
- Adult: Female 43.2%, Male 56.8%
- Elderly: Female 53.8%, Male 46.2%
- Not recognizable: Female 0.0%, Male 0.0%

n=684, USA Sample

All 3 baby characters are female (100%). Out of the children, 167 (54.8%) are male and 138 (45.2%) are female. Among the teenagers 51.3% are male characters (n=118) and 48.7% are females (n=112). 57 female characters are coded as adults (43.2%), whereas the adult male characters are 75 (56.8%). There are also 6 senior male (46.2%) and 7 female (53.8%) characters. There are no characters in the USA sample, whose age could not be recognized.

Female characters
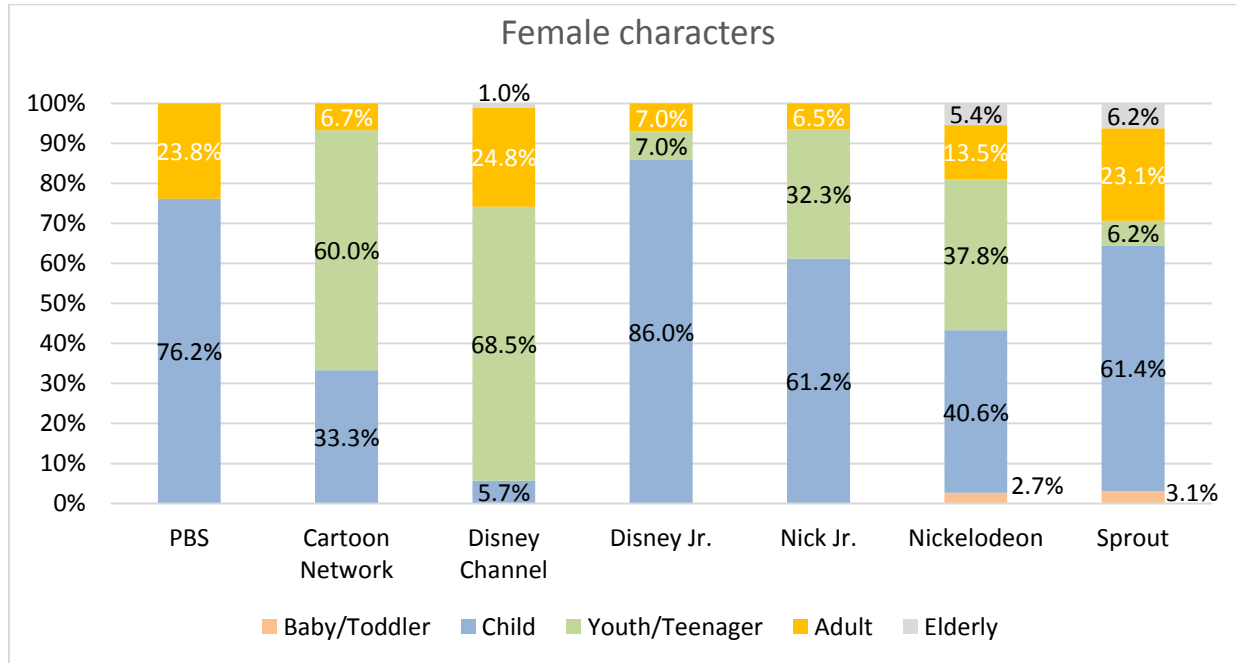
The highest share of female children was found on Disney Jr. (86.0%). The highest percentage of female teens was found on Disney Channel (68.5%), the percentages of adults were similar on Disney Channel (24.8%), PBS (23.8%) and Sprout (23.1%). The most female seniors were broadcasted on Sprout (6.2%).

Male characters
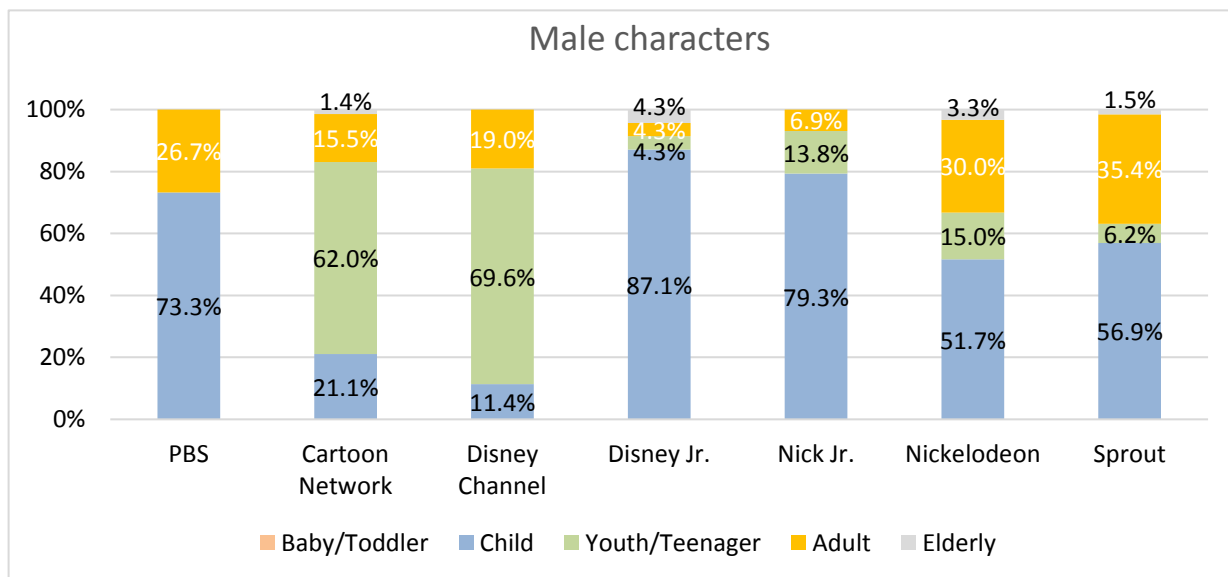
When it comes to the males, the highest percentage of male children was found on Disney Jr. (87.1%). The highest share of male teens was on Disney Channel (69.6%) and the highest share of male adults was on Sprout (35.4%).

5.4 Which disabilities do the main characters have?

In this study, the main characters were coded as disabled if the character has a clearly identifiable disability (e.g. wheelchair, blindness) or a severe chronicle illness (e.g. HIV/AIDS, cancer, diabetes), which can be seen obviously or is an important part of the character development. In the USA sample, there are 3 characters (1 female (0.3%) and 2 male (0.5%) characters) - who have obvious disabilities. No character with a serious chronicle disease has been found among the USA characters. 99.6% of the characters have no recognizable disability.
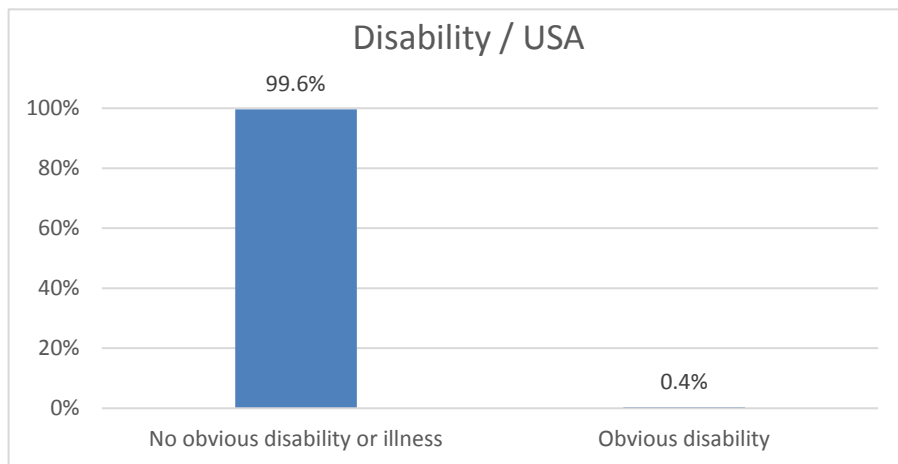
5.5 What is their main resource to solve problems?

349 characters (21.1%) solve problems by using science, technology, engineering and/or mathematics (STEM). 151 characters (9.1%) are solving issues with magic, which is the use of supernatural powers to make things happen that would usually be impossible, such as making people disappear and/or

Main ressource to solve problems / USA

n = 1,654, USA sample
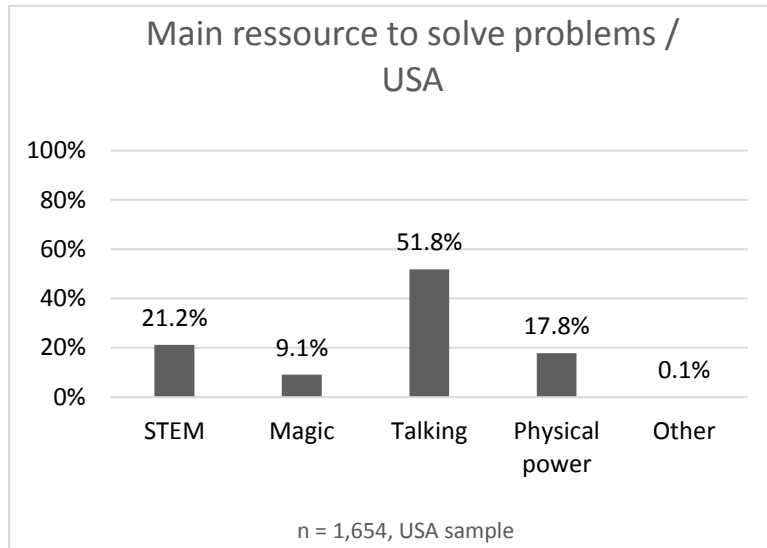
the use of means such as charms or spells believed to have supernatural powers over natural forces. 857 (51.8%) are using talking, mediation, organizing and/or understanding. 295 (17.8%) use (natural or enhanced) physical power as their main resource to solve problems. Only 1 character (0.1%) could not be categorized to any of the categories.

Gender perspective: Female characters solve their problems with magic two times more often, male characters use physical power more often.

Of the female characters 104 (16.5%) use STEM, 85 (13.4%) use magic, 358 (56.6%) solve problems by talking, mediating, organizing and understanding, 84 (13.3%) use physical power and 1 character (0.2%) solves her problems in an another way.

Of the male characters 245 (24.0%) do STEM, 66 (6.5%) do magic, 499 (48.8%) solve their problems by talking, mediating, organizing and understanding, 211 (20.7%) solve problems with the help of physical power.

Main ressource to solve problems

n=1,654
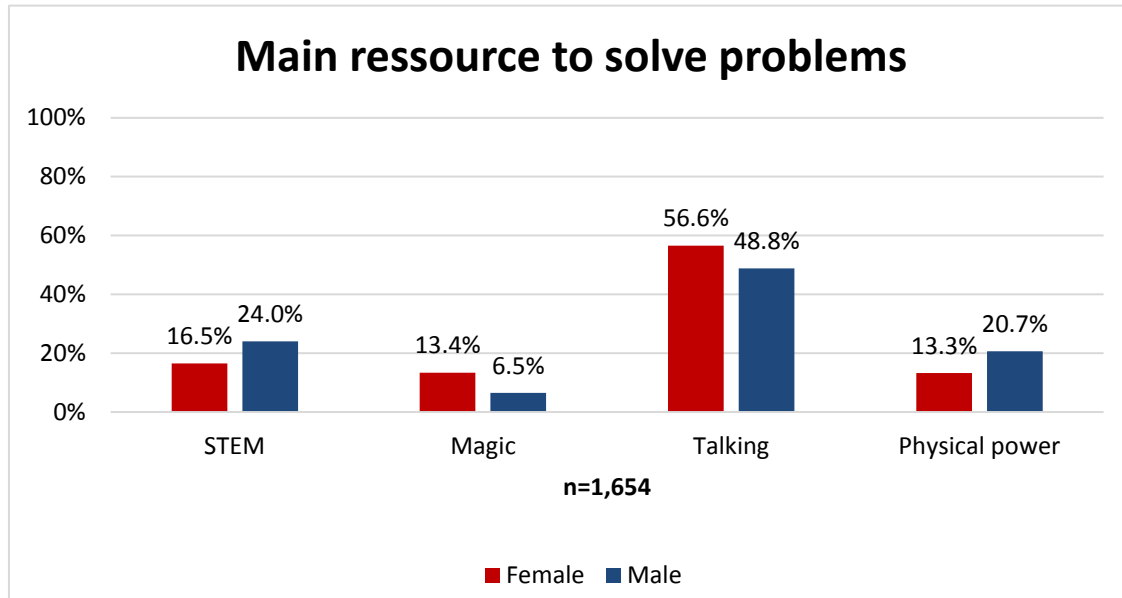
■ Female ■ Male

Out of the characters, who use STEM as a problem-solver 29.8% are female (n=104) and 70.2% are male (n=245). The magic category consists of 56.3% female characters (n=85) and 43.7% males (n=66). 358 females are using talking, mediation, organizing etc. as a problem-solver (41.8%), whereas the male characters are 499 (58.2%). 211 males make up 71.5% of the physical power group and the females, who use this method are 84 (28.5%). The "Other" category consists of 1 female character (100%).
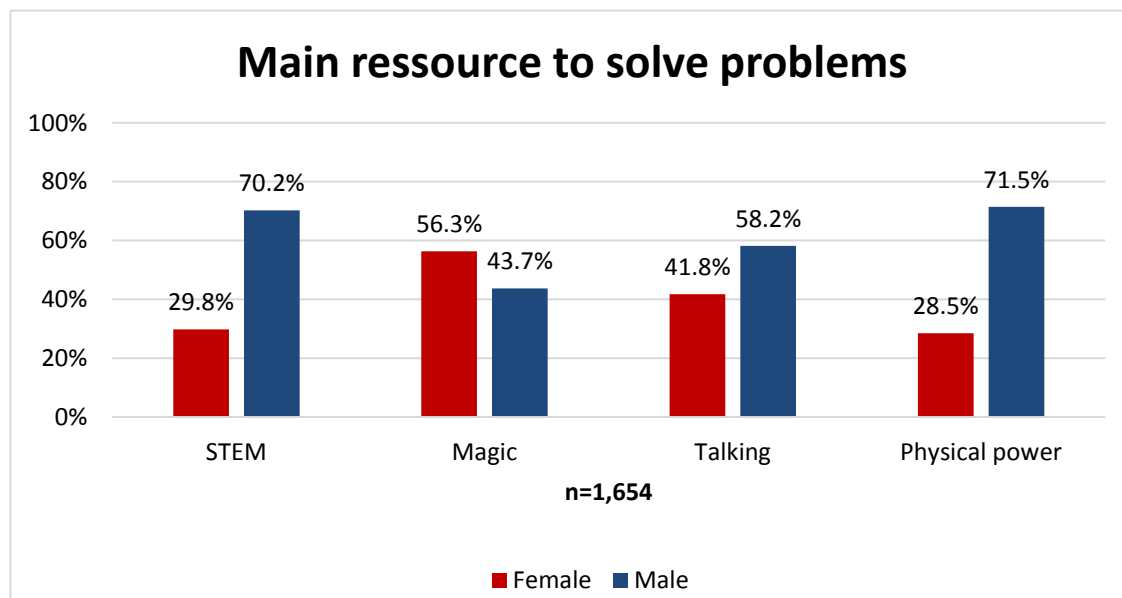
Main ressource to solve problems

n=1,654

■ Female ■ Male

International comparison

STEM		Magic		Talking		Power	
Israel	24.4%	Cuba	15.5%	UK	53.4%	Cuba	23.2%
UK	24.0%	Taiwan	10.8%	Taiwan	52.9%	Belgium	19.9%
USA	21.1%	Israel	9.9%	USA	51.8%	USA	17.8%
Canada	18.5%	Belgium	9.8%	Canada	50.3%	Canada	16.3%
Belgium	16.7%	USA	9.1%	Belgium	50.0%	UK	15.1%
Taiwan	11.1%	Canada	8.7%	Israel	48.7%	Taiwan	14.3%
Germany	8.8%	Germany	6.7%	Cuba	24.8%	Israel	13.5%
Cuba	7.2%	UK	3.6%	Germany	24.3%	Germany	6.4%
total	**18.5%**	**total**	**8.4%**	**total**	**47.2%**	**total**	**15.4%**

USA takes the third place in the STEM category with 21.1%. When it comes to talking or using physical power as resource to solve a problem, USA is also above the international average. Regarding the magic category, USA is 1.6% above the average. ´Others´ category here is excluded.

6. Production: How is the show directed, written, produced and created?

The information required for this abstract was derived from the credits of the show or when needed, from the internet.

6.1 Director

In the director category there are many autonomous male directors. 255 (59.1%) of the shows are directed by one man. 21 (4.9%) are directed by one woman. Teams with women constitute 37 (8.6%) of the directed shows and men-only direct 90 shows (20.9%). 6 shows are directed by a women-only team (1.4%). For 22 shows (5.1%) is not clear who and how many are the directors.

Directors / USA

n = 431, USA sample
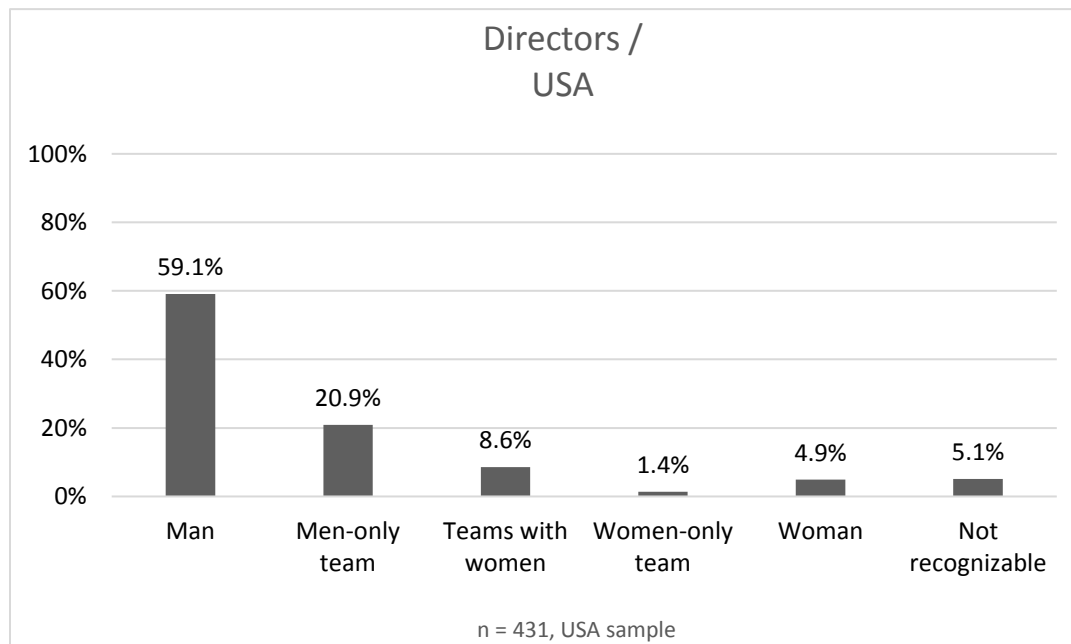
International comparison

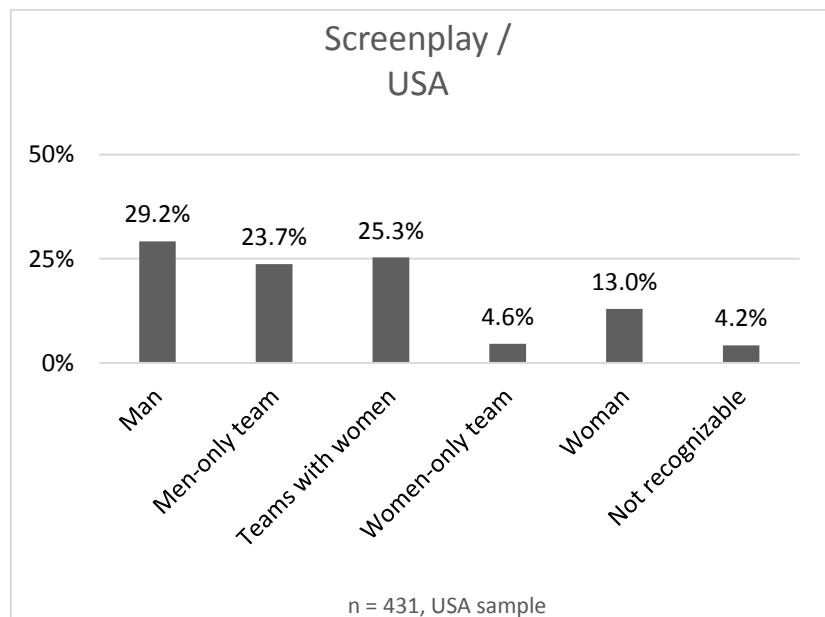| Woman		Man		Team with		Men-only		Women-only	
Canada	9.9%	Belgium	70.0%	Taiwan	10.8%	USA	20.9%	USA	1.4%
Cuba	9.8%	Canada	69.6%	Israel	8.9%	Israel	17.5%	UK	0.7%
UK	8.6%	Israel	68.4%	USA	8.6%	Cuba	16.7%	Belgium	0.4%
Germany	5.8%	Taiwan	66.7%	Cuba	8.5%	Germany	16.4%	Canada	0.2%
USA	4.9%	Germany	66.1%	UK	6.8%	Belgium	15.9%	Germany	0.0%
Taiwan	4.4%	Cuba	64.9%	Canada	6.3%	Taiwan	15.0%	Taiwan	0.0%
Israel	4.3%	USA	59.2%	Belgium	4.7%	Canada	12.1%	Cuba	0.0%
Belgium	4.2%	UK	56.1%	Germany	3.2%	UK	9.1%	Israel	0.0%
total	6.5%	total	66.1%	total	6.7%	total	14.4%	total	0.2%

Paradoxically, USA is the leader in the women-only team (1.2% above the average) category and the men-only team category (6.5% above the average). Among the shows directed by only one woman, USA is below the international average.

6.2 Screenwriter

126 shows (29.2%) are written by one man, whilst 56 (13.0%) are written by one woman. In terms of team writers, 109 (25.3%) shows are written by teams with (at least one) woman, 102 (23.7%) by men-only teams, and 20 (4.6%) – by women-only teams. For 18 shows (4.2%) is not possible to say whether one person or a team write the script.


Screenplay / USA

n = 431, USA sample

43

International comparison

Woman		Man		Team with		Men-only		Women-only	
Canada	20.3%	Cuba	58.0%	Israel	54.1%	Germany	25.2%	USA	4.6%
UK	18.4%	Canada	43.8%	Taiwan	42.5%	USA	23.7%	Germany	2.8%
Germany	15.9%	Belgium	38.6%	Cuba	28.7%	Belgium	22.9%	Belgium	2.0%
USA	13.0%	Taiwan	32.2%	UK	28.3%	Israel	22.4%	Canada	1.3%
Belgium	12.6%	Germany	32.1%	USA	25.3%	Canada	19.0%	Taiwan	1.1%
Cuba	12.2%	USA	29.2%	Belgium	17.7%	Taiwan	13.1%	UK	1.0%
Taiwan	8.1%	UK	23.5%	Germany	16.4%	UK	12.5%	Israel	0.3%
Israel	4.9%	Israel	17.0%	Canada	14.2%	Cuba	1.1%	Cuba	0.0%
total	12.9%	total	30.0%	total	29.0%	total	20.5%	total	1.8%

Among the screenwriters two conspicuous results concern the team with female screenwriters and women-only teams. The first one is 4% below the international average, whereas the second one is more than two times above the international average.

6.3 Producer

Teams with women constitute the highest share of the producers – 277 produced shows (64.3%). There are 3 (0.7%) productions of one woman and 32 (7.4) of one man. The number of shows without any female producers is 99 (23.0%) and of the shows with only female producers 6 (1.4%). Producer categorization is not possible for 14 shows (3.2%).


Producer / USA

n = 431, USA sample
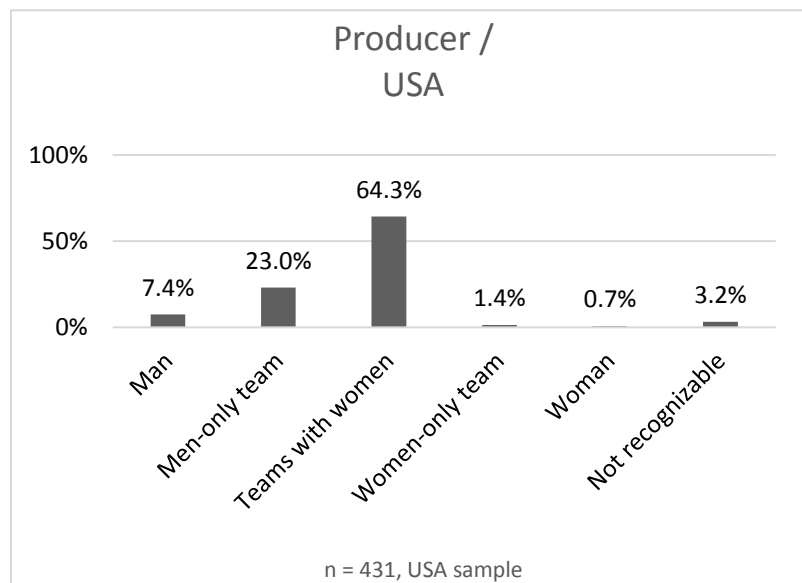
International comparison

Woman		Man		Team with		Men-only		Women-only	
UK	31.5%	Cuba	42.4%	USA	64.3%	Cuba	25.0%	Israel	3.8%
Israel	16.5%	Taiwan	34.2%	Canada	56.8%	Taiwan	23.6%	Belgium	2.9%
Canada	15.8%	Israel	23.3%	Belgium	51.1%	USA	23.0%	Canada	1.7%
Taiwan	11.7%	UK	21.2%	Israel	37.9%	Germany	22.4%	Germany	1.6%
Belgium	7.2%	Canada	11.2%	Germany	34.2%	Belgium	20.9%	USA	1.4%
Cuba	6.3%	Belgium	9.9%	UK	29.4%	Israel	15.1%	UK	1.2%
Germany	5.8%	Germany	7.9%	Taiwan	27.2%	Canada	12.7%	Cuba	0.4%
USA	0.7%	USA	7.4%	Cuba	25.9%	UK	7.1%	Taiwan	0.3%
total	14.5%	total	17.7%	total	41.1%	total	17.4%	total	1.8%

Among the producers the USA share of the teams with women is the highest of all countries, whereas USA takes the last place in both categories of shows produced by one woman or by one man. Among the men-only teams the USA comes in third with 6% above the international average.

6.4 Creator

212 shows (49.2%) are created by one man, while 56 (13.0%) by one woman. Teams with women make up 44 shows (10.2%), men-only teams - 95 shows (22.0%) and women-only teams - 8 shows (1.9%), concerning the creator. 16 shows (3.7%) could not be grouped in any of the categories.
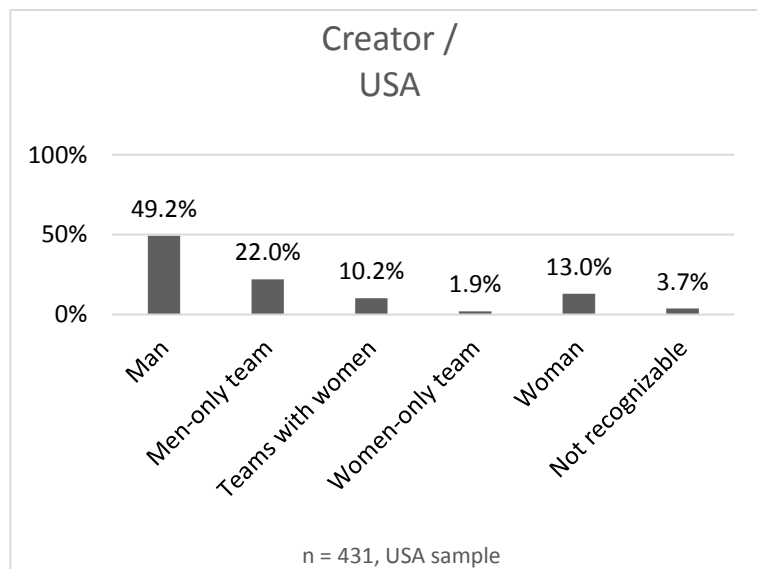
Creator / USA

n = 431, USA sample

International comparison

Woman		Man		Team with		Men-only		Women-only	
Cuba	17.6%	USA	49.2%	Israel	16.3%	Cuba	27.7%	USA	1.9%
Canada	16.8%	Cuba	45.7%	UK	13.5%	Israel	24.4%	Canada	1.9%
UK	16.0%	Canada	45.1%	Canada	10.7%	USA	22.0%	Germany	1.6%
USA	13.0%	Belgium	37.7%	Taiwan	10.6%	Belgium	20.9%	Belgium	1.1%
Belgium	11.2%	Israel	36.0%	USA	10.2%	Germany	17.3%	Israel	0.3%
Israel	9.8%	Taiwan	26.9%	Cuba	9.0%	Canada	16.8%	Taiwan	0.0%
Taiwan	6.9%	UK	25.7%	Belgium	7.9%	UK	12.5%	Cuba	0.0%
Germany	5.5%	Germany	18.5%	Germany	6.9%	Taiwan	7.8%	UK	0.0%
total	**12.2%**	**total**	**33.7%**	**total**	**11.2%**	**total**	**18.4%**	**total**	**0.6%**

Woman creators, man creators and men-only teams are above the international average, regarding USA children's television. USA is the leader in both the women-only category and the category of shows, created only by one man. On the other hand, the USA share of shows produced by teams with women is with 1% below the international average.

7. Summary of the results

7.1 USA children´s television in international comparison

The sample we analysed here consists of 196:17 hours of explicit children's television, 476 programs (431 fictional shows), 1,654 characters (fiction) and 684 human characters.

In international comparison a lot of tendencies in the USA Children's Television are close to the average of the other 7 analysed countries, e.g. with a very high percentage of animation, the equal representation of the characters, the teaming up behind the production process integration etc.

On some measures the USA children's television was outstanding in the international comparison and took the first places; hence the highlight of some results:

- 58.7% of the shows on USA children's television are domestic productions, which makes the USA second in the international comparison with the remarkable 30% above the international average.
- The characters in the USA children's television tend to be represented in a group, instead of being alone or a part of a duo. Moreover, the equals outmatch the leaders and the followers.

In some opposite aspects the children´s television in the USA is below the average of the other 7 analyzed countries. This result can be observed by the representation of human and adult characters, the presence of antagonists, the share of the white Caucasian characters etc.

When it comes to gender, an interesting finding in this study is that USA children's programming, compared to the international data, has the second highest female representation, though the overall ratio between males and females is still not equal. However, when it comes to the type of characters, female characters are more likely to be humans than their counterparts, whereas male characters are more likely to be portrayed as animals, plants/objects and robots.

The female part in the production process of children's programming in the USA presents a very important tendency: It takes the first place in proportion of programs with exclusively women

directors, screenwriters and creators. Another significant finding concerns the production of a show by a mixed team (men and women), whereby the share of the USA children's television makes the USA the leader on an international scale. This suggests a potential for a significant positive change in terms of gender representation on the screen.

Some other results should be mentioned, regarding the differences between the various TV channels:

- The public TV in the USA sample with its only representative, PBS, shows a variety of fictional entertainment (34.5%), non-fictional programs (1.7%) and mixed formats (63.8%) in its assortment . The six Commercial TV channels offer mostly, if not only, fictional programs.

- Disney Channel differs from all other channels with its high share of live action programs (41.4%) and Nick Junior's percentage of mixed formats is (41.1%) to a great extent higher than the share of the other commercial channels.

- Nick Junior has the least share of female characters – 25.4%. The share of the other six is around 40%.

- The share of male monsters on Cartoon Network is 21.3%. On the other hand, the female monsters on the same broadcaster are 66.1%. The average of monster representation in all USA channels was 18.3%.

7.2 Main differences between the USA samples in the ten-year gap

- Bigger share of fictional shows and thus fewer non-fiction programs.
- Public TV has decreased its fictional programs almost by a half.
- Fewer animations, twice as more mixed formats.
- A great decline of domestic productions.
- There is a positive change when it comes to the proportion between male and female characters
- The share of female characters has increased on Cartoon Network, Nick and Sprout.

- Concerning the type of characters, the monsters' share is three times higher than before.

- The number of female antagonists in 2017 is cut by half.

- Regarding the constellation of the characters, the representation of groups rose rapidly from 74.5% to 92%, making USA the leader in this category.

- A 2.6% decline in terms of the white characters and almost 4% decrease in terms of the Asians.

- Female black characters are almost twice as many as the male black characters, an increase from being 3% less than male black characters in the previous study. .

- Female red-haired characters are twice as many as males.

- More children, less teenagers and adults.