Fonts in movie titles. Can fonts affect the meaning of words? Taylor West & Zierra Dean, Department of Psychology. [faculty mentor: Steve Mansfield]

Rationale
Prior research shows that font can add a nuance to the meaning of what is written (Velasco et al., iPerception, 6, 1-10, 2015). For example: these fonts, which have all been used in movie titles, provide clues concerning what each movie is about.

We are interested in whether the meaning of words is affected by the font. We have tested this using words that have more than one meaning (see Table 1). In normal reading, the meaning of these words is disambiguated by the context of the sentence. Can the font also provide a context for interpreting the words?

Table 1. The words, meanings, and fonts from our study.

<table>
<thead>
<tr>
<th>word</th>
<th>meaning 1</th>
<th>meaning 2</th>
<th>fonts</th>
</tr>
</thead>
<tbody>
<tr>
<td>bow</td>
<td>bend the head or upper part of the body as a sign of respect</td>
<td>a weapon for shooting arrows</td>
<td>bow</td>
</tr>
<tr>
<td>sewer</td>
<td>an underground conduct for carrying off drainage water and waste matter</td>
<td>a person who sews</td>
<td>sewer</td>
</tr>
<tr>
<td>tear</td>
<td>a drop of clear salty liquid excreted from glands in the eye</td>
<td>pull or rip (something) apart or to pieces with force</td>
<td>tear</td>
</tr>
<tr>
<td>wind</td>
<td>the perceptible natural movement of the air</td>
<td>move in or take a twisting or spiral course</td>
<td>wind</td>
</tr>
<tr>
<td>wound</td>
<td>an injury to living tissue</td>
<td>past tense of wind; e.g. &quot;he wound the clock&quot;</td>
<td>wound</td>
</tr>
</tbody>
</table>

Example movie titles and plot summaries

The Legendary Bow
Left with nothing but a bow and arrow, Mike is stranded in an unfamiliar Alaskan forest in the middle of winter after a plane crash.

The Bow and the Arrow
A girl learns to use a bow and arrow and becomes a skilled user and she is put to the test when her town is under attack.

A message from a bow
Two customers crossed lovers, one Native American and one English, have to hide their love from the world around them. The only way of communicating is writing a message and sending it on a bow and arrow.

Take a Bow
A theater group gets chosen as one of the best in the state, but tensions begin to rise when they meet their competition. They never expected for this competition to lead to murder.

The Last Bow
A group of high school students are preparing for their last performance before they graduate high school. They discuss their journey in theater throughout high school and what their emotions are like as they prepare for the final show.

Every heart has a wound
High school girls are forced to participate in a group therapy session about their feelings. When they start to open up about their emotions and heartaches, they all realized that everyone experiences heartaches.

The wound that speaks
One day Jack was riding his bike when he hit a bump fell off and got the biggest wound on his knee. Three days later that wound starts to speak.

Wound Tightly
In this movie a boy who is upright and only ever studies goes off to college, but with the help of his new roommate he learns to let loose and live his life without fear.

The wound clock
A group of friends are trapped in a house and they have to try to escape before the clock runs out.

All Wound Up
A story of two parents and their children who are always off the walls with energy and causing trouble.

Don’t Cry A Tear
This movie is sappy and sad. It is about a family who lost their dog to cancer, and the dog comes back as a ghost to protect their family.

The Silent Tear
A girl wishes to have her brother back after a terrible accident, can she keep her tears silent, or will she rebel?

Tear Us Apart
A love story about an angel from heaven who has to fight against the unbreakable law for his true love.

The tale of the Sewers
A crocodile man and his human friend go on adventures in the sewers beneath the city of New York.

Attack of the Mutant Sewer Bats
Radioactive waste gets dumped into one of the main storm drains in New York City. The U.S Army forms a special task force to stop these insane creatures from taking over the world.

Sewer Love
A sewage technician realizes love isn’t always shitty when he meets Claire.

The Wind That Destroyed the World
The world is coming to an end when a giant wind storm is destroying everything in its path.

How the wind blows
A romance movie about a couple always being outside with the wind blowing, the wind represents the feels of their relationship.

Results
The meaning of bow was biased towards “archery” when printed using the Arrowsesque font, and towards “theater” when printed using the BroadwayEvent font (p<0.001).

The meaning of wound was biased towards “twisting” when printed using the CurlyShirley font, and towards “injury” when printed using the BloodyStump font (p<0.001).

The fonts had no effect on the meaning of tear (p=0.16), sewer or wind.

Discussion
Font can affect the meaning of words, but only in cases where the fonts strongly depict the alternative meanings of the word.

Our failure to find an effect for tear, sewer, and wind might be because our font choices only weakly suggested the alternate meanings, and this was not sufficient to overcome our natural bias towards one way to interpret the word when it is presented in isolation.

Method
Participants
- 220 students in PSY101 General Psychology.

Procedure
- The study was conducted online via Google Forms.

The students were shown each of the words, one at a time, printed in fonts that were consistent with one or other of each word’s meanings (see Table 1).

The students were randomly assigned to versions of the form that used different fonts for each word.

The students were asked to make up a movie title that included the given word and to write a short summary of the movie’s plot.

Three judges subsequently rated the students’ responses for the meaning ascribed to the target word.

Cases where judges disagreed, or where the meaning was ambiguous (e.g., “The tear in her heart”), were removed from the analysis.