First, the news...

- https://www.youtube.com/embed/videoseries?list=PLC0A3CAC7B3A0E288
Gestalt Principles

- Proximity
- Similarity
- Continuity
- Closure
- Symmetry
- Figure/Ground
- Common Fate

Gestalt is the German word for “shape” or “figure”
Proximity

- The relative distance between objects in a display affects our perception of whether and how objects are organized into sub-groups.
Proximity

Boxes should appear unrelated to each other
Proximity

Boxes should now appear to be a group
Proximity

Boxes should now appear to be grouped by row
Proximity

Boxes should now appear to be grouped by column
# Proximity

- UI designers want to group similar things. This firewall policy

<table>
<thead>
<tr>
<th>Name</th>
<th>Group</th>
<th>Profile</th>
<th>Enabled</th>
<th>Action</th>
</tr>
</thead>
<tbody>
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<td></td>
<td>Private</td>
<td>Yes</td>
<td>Allow</td>
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<tr>
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<td></td>
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<td>Allow</td>
</tr>
<tr>
<td>Firefox (C:\Program Files (x86)\Mozilla F...</td>
<td></td>
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<td>Allow</td>
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<tr>
<td>Firefox (C:\Program Files (x86)\Mozilla F...</td>
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<tr>
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</tr>
<tr>
<td>Microsoft Lync</td>
<td></td>
<td>Public</td>
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</tr>
</tbody>
</table>
Similarity

- Objects that look similar appear grouped.
Similarity

Your brain naturally tries to put circles in one group and boxes in another
Similarity

Circles should look very grouped now
Similarity

Same story with the stars, they different looking ones should appear grouped
Similarity

Text boxes all look similar which is good.

Proximity a bit far on top box
Plants Vs Zombies 2 would like to:

Know the list of people in your circles, your age range, and language

Includes people in circles that are not public on your profile

Share your game activity and view and manage your game activity

Proximity:
Buttons are close to each other so appear grouped

Similarity:
Buttons have same font and color so appear grouped

[Deny] [Allow]
Similarity: Same color indicating that both are related to on/off state.

Proximity: Output is grouped so looks similar

Similarity: Same color is confusing here since it has nothing to do with on/off state.
Continuity

- We resolve ambiguity by adding in missing data in such a way that we perceive whole objects. We are biased towards perceiving continuous forms rather than disconnected pieces.
Continuity

Is this 40 lines?
Or is it the letters IBM?
Continuity

Your brain fills in the gaps to create whole structures.
Continuity

The ball vanishes behind the lines but you still perceive it as a single object.
Continuity
Partial occlusion of the paths by the character or icons is not a problem for the person.
Closure

• We automatically try and close open figures so they are seen as whole objects rather than bits of line.
Closure

What shape is this?

Try and make your brain see 5 lines.
Closure

What shapes do you see?

One of the shapes doesn’t even have any ink representing it.
Despite the occlusion the above icon still looks like a circle.
Symmetry

- We tend to parse complex images in a way that reduces complexity. Even if there are multiple interpretations, our brain tries to pick the simplest one.
Symmetry

What does this shape look like to you?
Symmetry

Most people probably saw two rectangles overlapping.
Symmetry

It could be a small rectangle overlapping a more complex shape.
Symmetry

It could be two L shaped angles
Symmetry

Our brains like simplicity, so we are most likely to pick two overlapping rectangles
Both of these appear as circles despite both of them being made up of two separate colors.
Figure/Ground

- Our brains try and separate images into a foreground and a background.
Figure/Ground

M. C. Escher is one of the more famous artists to use this principle
Figure/Ground

This image is also an example of figure/ground, your brain naturally picks one as the foreground and one as the background.
Figure/Ground

Bigger image looks like background, and smaller image looks like foreground
Kami Vaniea
@kaniea

TWEETS 1,144
FOLLOWING 223
FOLLOWERS 308

Who to follow · Refresh · View all

Edinburgh University @... X
Follow

Converge Challenge @Con... X
Follow

Find people you know
Import your contacts from Gmail

Connect other address books

Trends · Change

#GBBOFinal 🎃
202K Tweets

What's happening?

View 3 new Tweets

WIRED @WIRED · 3m
This is how you grow a perfect pumpkin: bit.ly/2eHhgXn

FTC @FTC · 7m
Lenses not fit & prescribed can have dreadful results! Shop safely with your Rx this #Halloween. #ContactLensRule FTC.gov/Contacts
This is how you grow a perfect pumpkin: bit.ly/2eHhgXn
Common Fate

- Similar to proximity and similarity, but concerning moving objects. Things that move with similar patterns are seen as grouped.
Common Fate

Boxes that move together naturally seem grouped
Principles often happen together
https://www.gapminder.org/tools/#_chart-type=bubbles
Just for fun
Questions?