



APPLIED DATA STORYTELLING TECHNIQUES IN POWER BI

About me

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Data Visualization Manager at **PANDORA**

Behavioral Economist

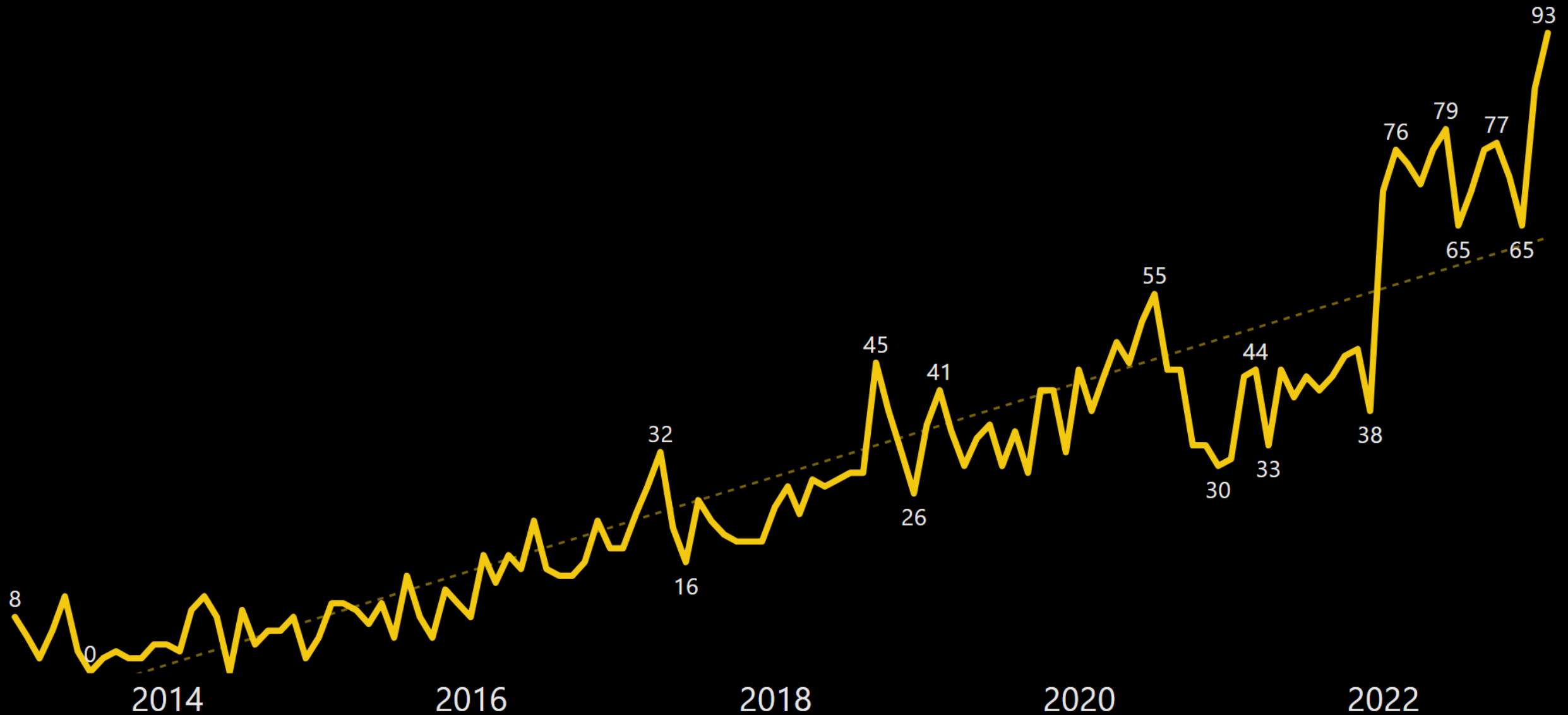
Worked with Power BI since before sorting and filtering in the data view was possible.

I like food, Star Wars and lifting heavy things.

 /andersmaylandlarsen



The **popularity** of the term "**Data Storytelling**" on Google has increased by **191 %** since **December 2019**.



Data Storytelling Definition

Data storytelling is a method of communicating insights by combining narrative with data visuals.

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imparting information

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an unexpected shift in our perception

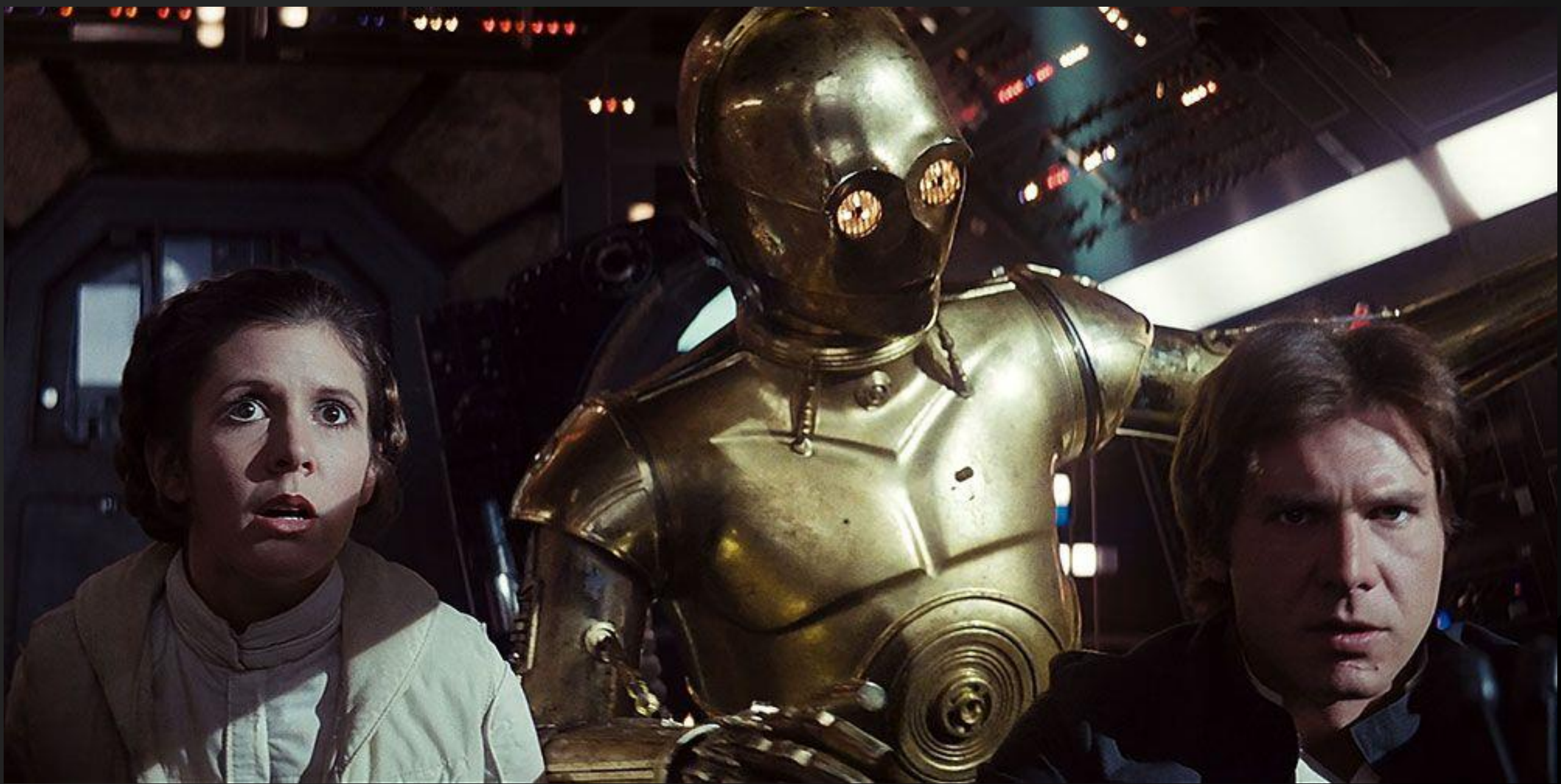
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Data storytelling is a method of communicating insights by combining **narrative** with data visuals.

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story, describing series of events






Sir, the possibility of
successfully navigating
an asteroid field is
approximately 3,720
to 1!



That was a compelling statistic, C-3PO. I will find another course of action.

A still from the movie Star Wars: The Force Awakens. On the left, Rey is shown with a look of surprise or concern. In the center, the golden droid C-3PO is visible. On the right, Han Solo is looking forward with a serious expression. A semi-transparent white speech bubble is overlaid in the center, containing the text "Never tell me the odds!".

**Never tell
me the
odds!**

Where did C-3PO fail?



C-3PO

Where did C-3PO fail?



C-3PO

1. Selection bias

Where did C-3PO fail?



C-3PO

1. Selection bias
2. Outlier consideration

Where did C-3PO fail?



C-3PO

1. Selection bias
2. Outlier consideration
3. Lack of narrative

Where did C-3PO fail?

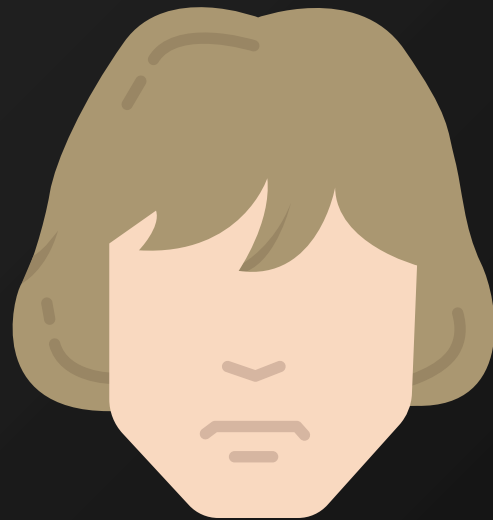


C-3PO

1. Selection bias
2. Outlier consideration
3. Lack of narrative
4. Lack of visual anchor

Two key factors in decision making

Two key factors in decision making



Luke

Two key factors in decision making

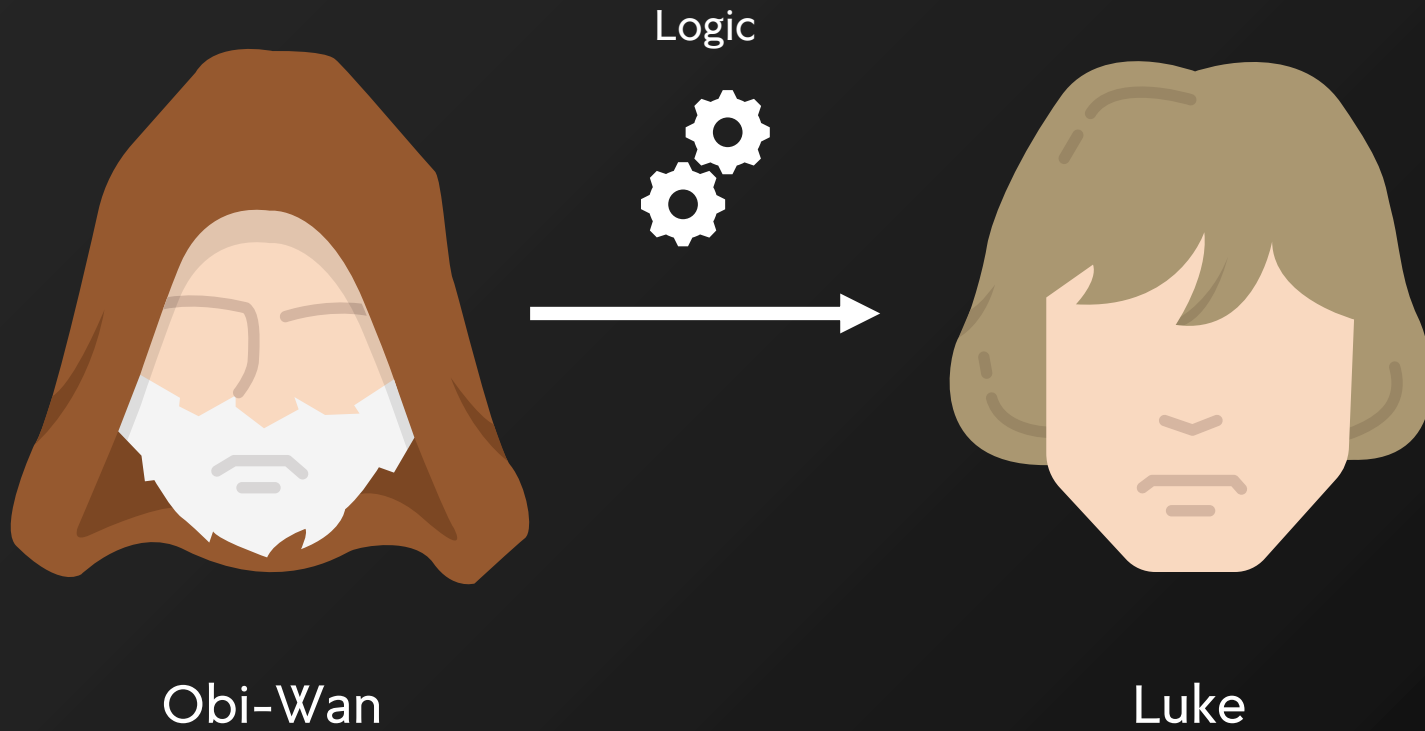


Obi-Wan



Luke

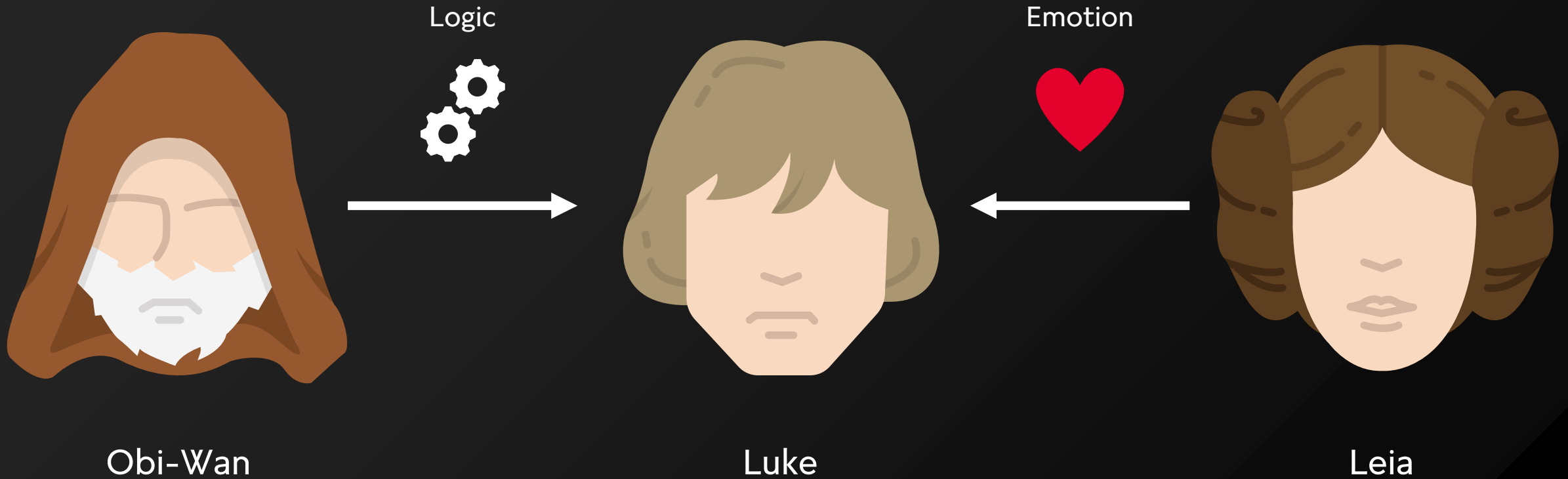
Two key factors in decision making



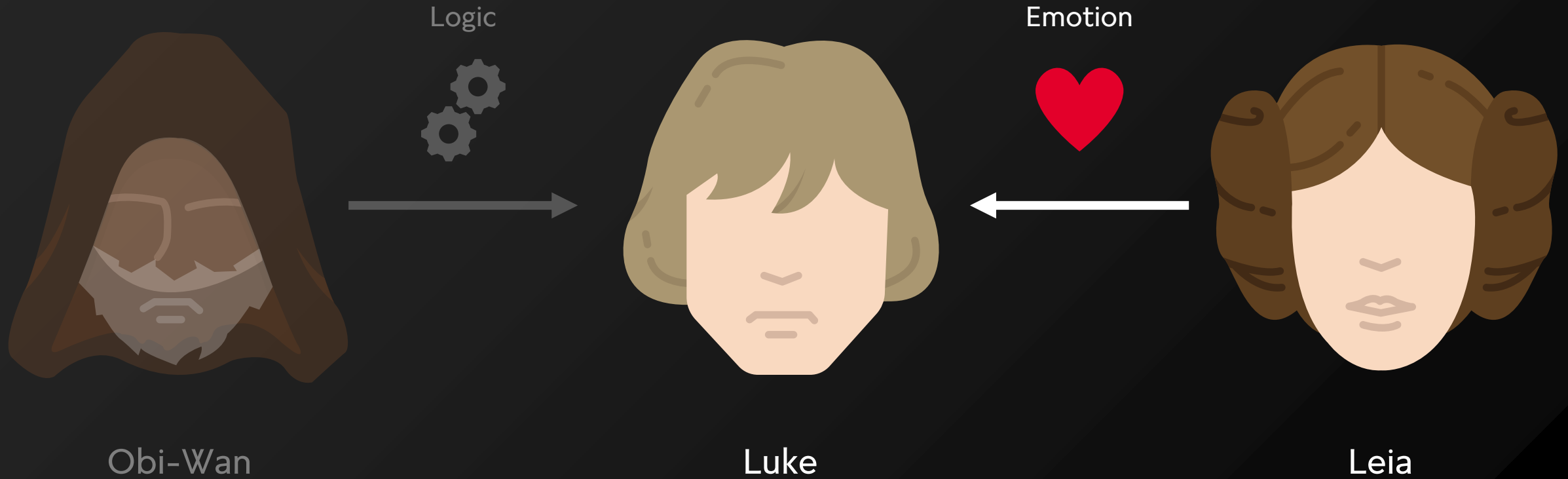
Two key factors in decision making



Two key factors in decision making



Two key factors in decision making



Disruptive insights

Disruptive insights



Disruptive insights



Disruptive insights



Disruptive insights



Misuse of the term “Data Storytelling”

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Data storytelling is a tool like any other.

Learnings from Behavioral Economics

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Heuristics:

People tend to make decisions using mental shortcuts as opposed to using long, rational, optimal reasoning.

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People tend to make decisions using mental shortcuts as opposed to using long, rational, optimal reasoning.

Framing:

Cognitive bias that suggests an outcome may be determined based on the structure of how something has been presented.

The Three Elements of a Data Story

The Three Elements of a Data Story



The Three Elements of a Data Story

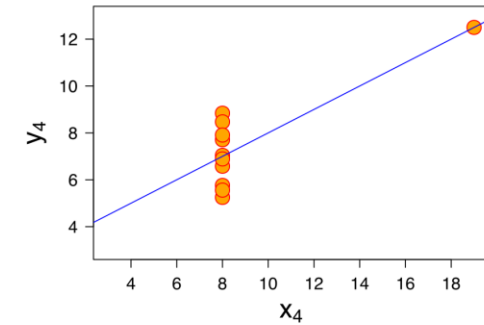
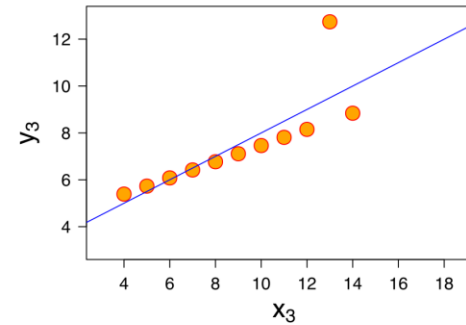
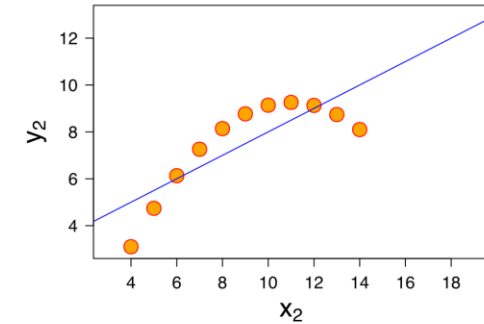
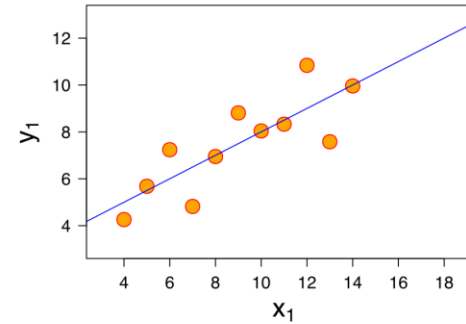


Ancombe's Quartet

I		II		III		IV	
x	y	x	y	x	y	x	y
10.0	8.04	10.0	9.14	10.0	7.46	8.0	6.58
8.0	6.95	8.0	8.14	8.0	6.77	8.0	5.76
13.0	7.58	13.0	8.74	13.0	12.74	8.0	7.71
9.0	8.81	9.0	8.77	9.0	7.11	8.0	8.84
11.0	8.33	11.0	9.26	11.0	7.81	8.0	8.47
14.0	9.96	14.0	8.10	14.0	8.84	8.0	7.04
6.0	7.24	6.0	6.13	6.0	6.08	8.0	5.25
4.0	4.26	4.0	3.10	4.0	5.39	19.0	12.50
12.0	10.84	12.0	9.13	12.0	8.15	8.0	5.56
7.0	4.82	7.0	7.26	7.0	6.42	8.0	7.91
5.0	5.68	5.0	4.74	5.0	5.73	8.0	6.89

Ancombe's Quartet

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9.0	8.81	9.0	8.77	9.0	7.11	8.0	8.84
11.0	8.33	11.0	9.26	11.0	7.81	8.0	8.47
14.0	9.96	14.0	8.10	14.0	8.84	8.0	7.04
6.0	7.24	6.0	6.13	6.0	6.08	8.0	5.25
4.0	4.26	4.0	3.10	4.0	5.39	19.0	12.50
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Simplified Data Storytelling Arc

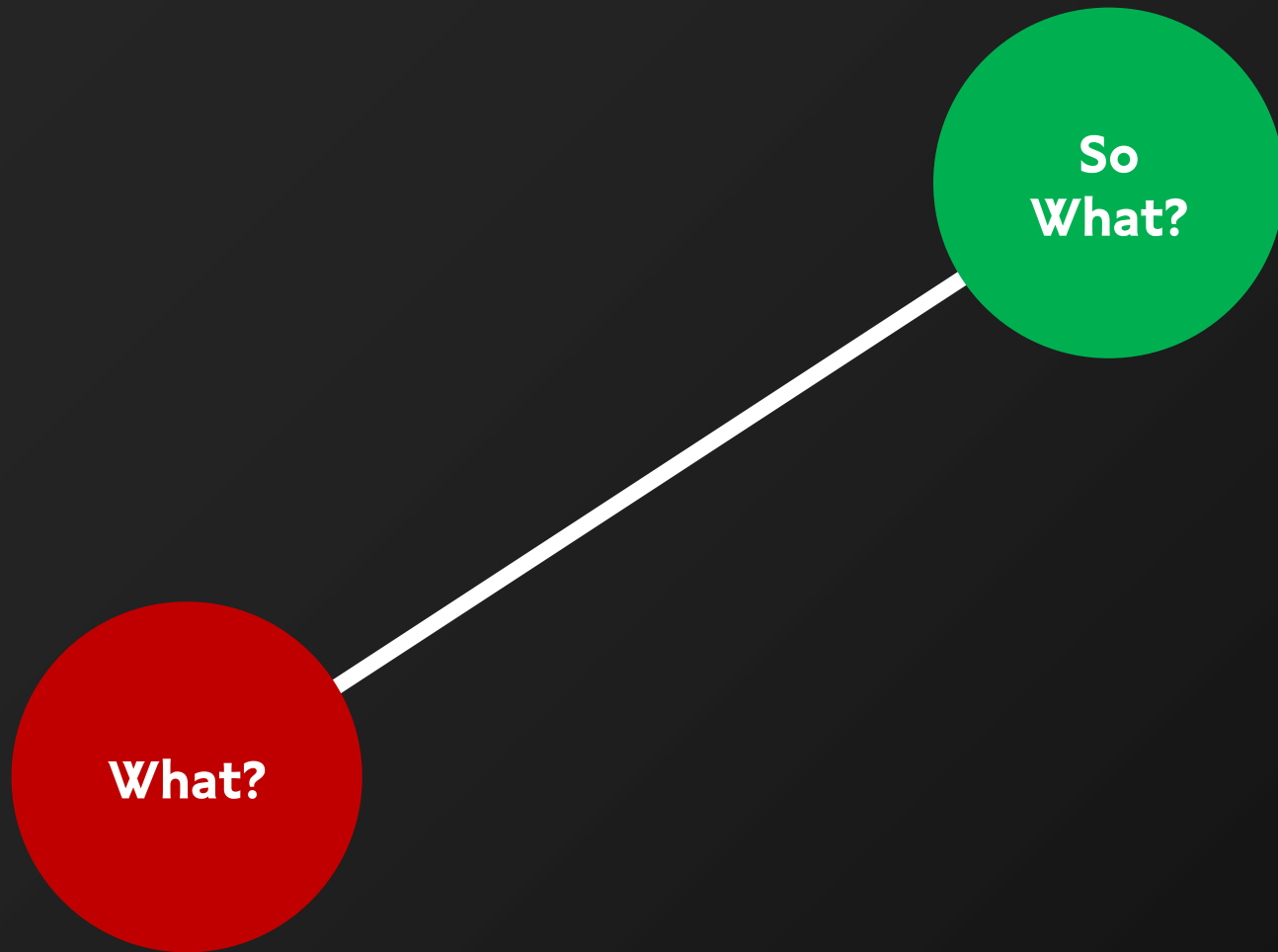
What's the story?

Simplified Data Storytelling Arc

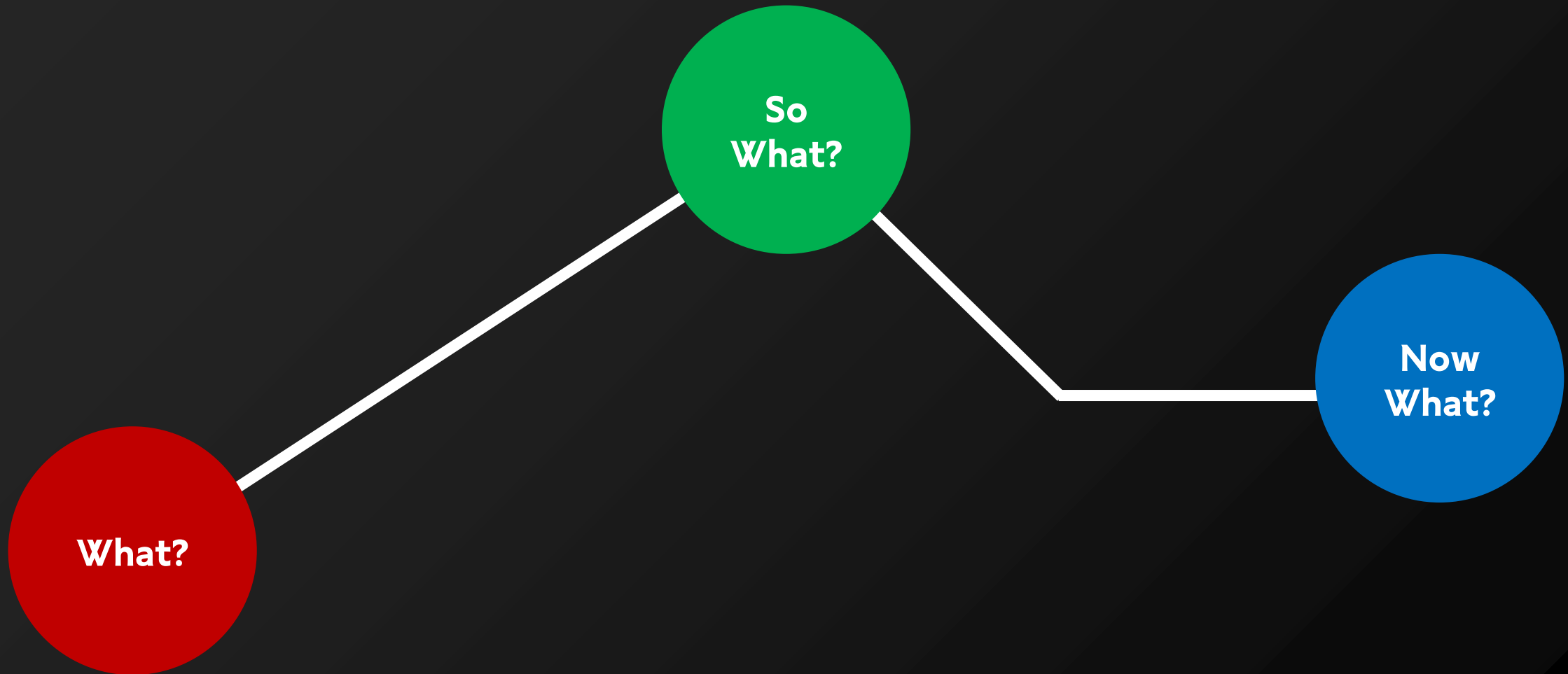


What?

Simplified Data Storytelling Arc



Simplified Data Storytelling Arc



The “Story Zone”

The “Story Zone”



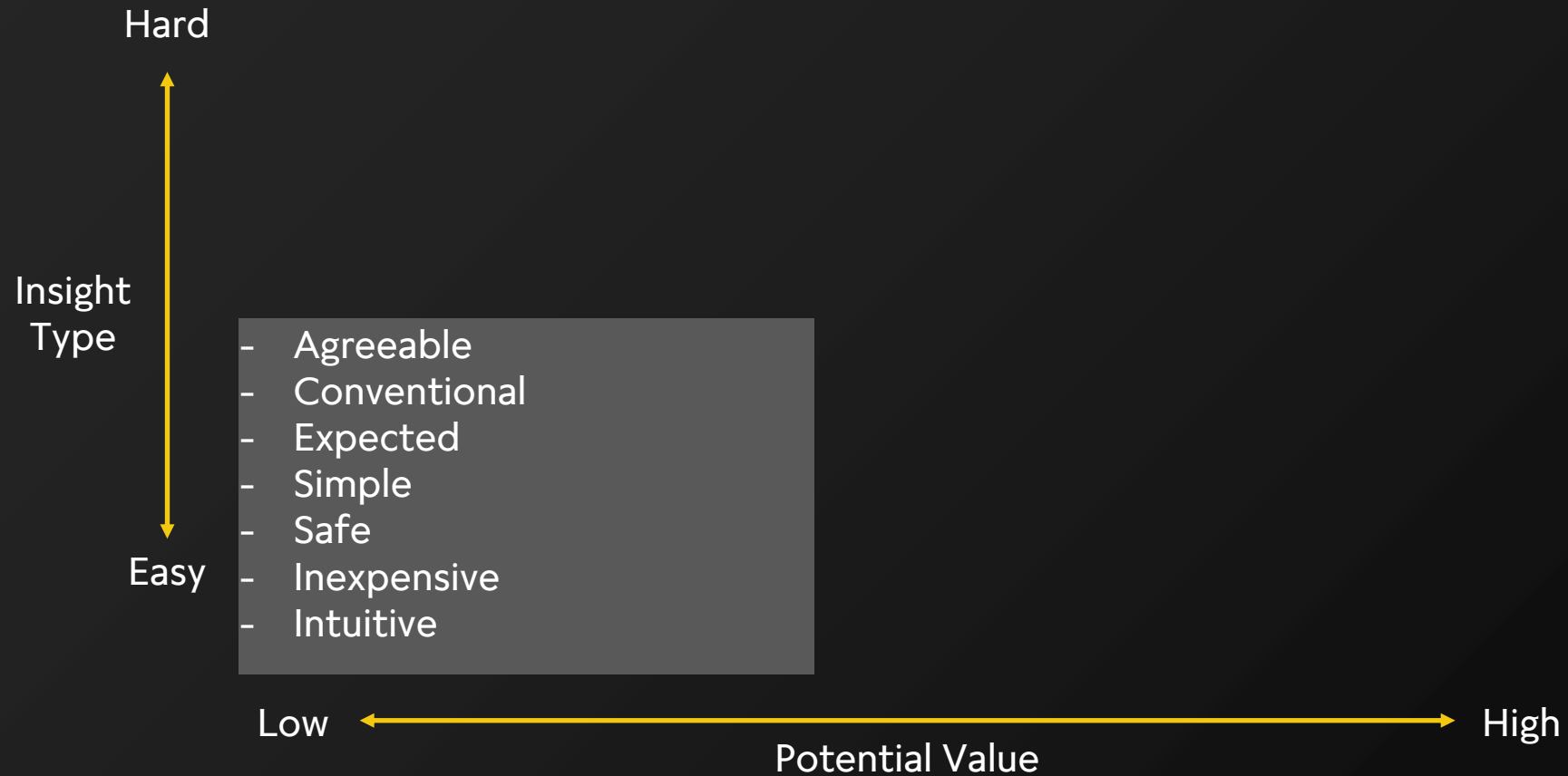
Source: Brent Dykes (2019)

The “Story Zone”

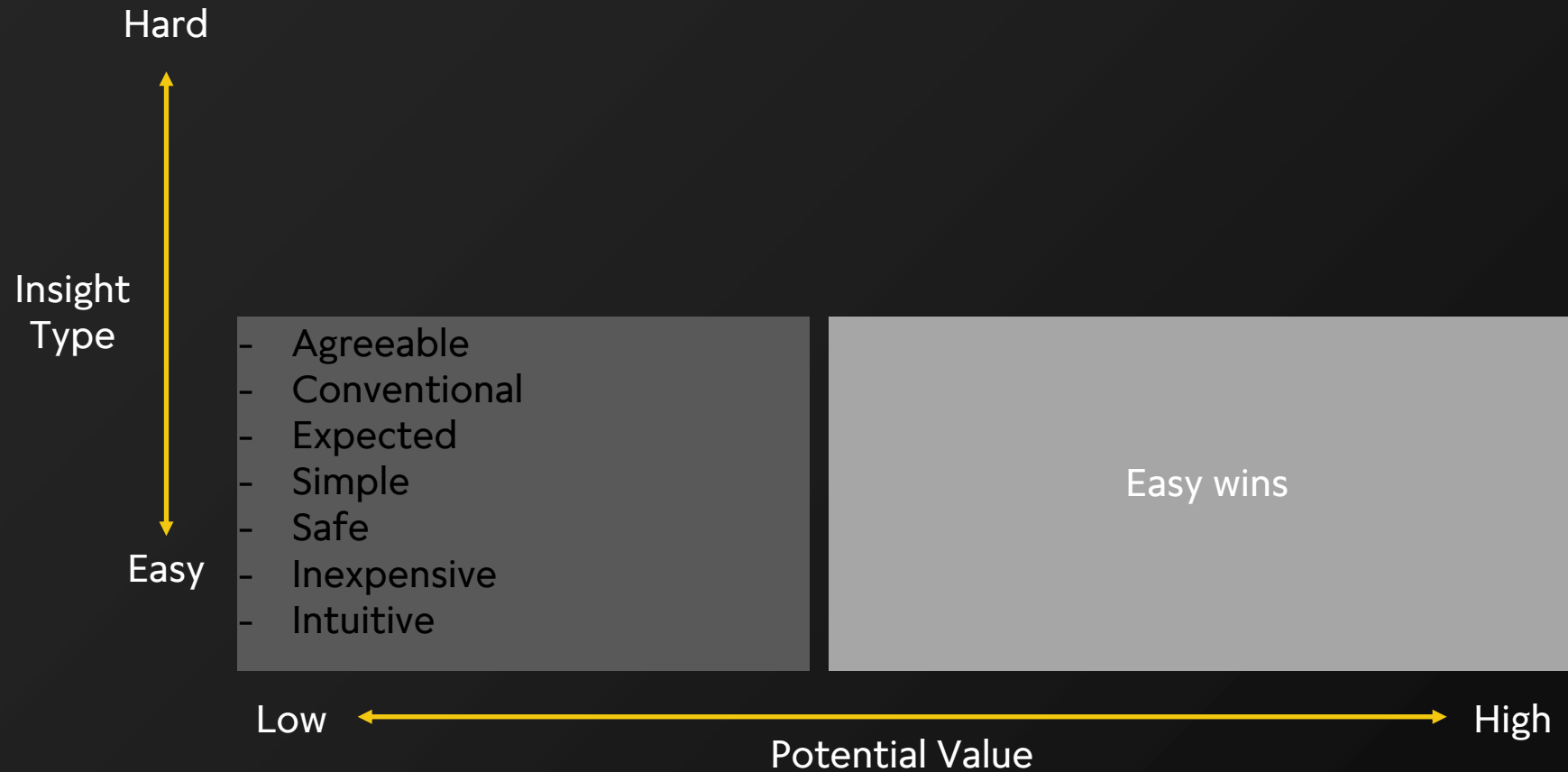


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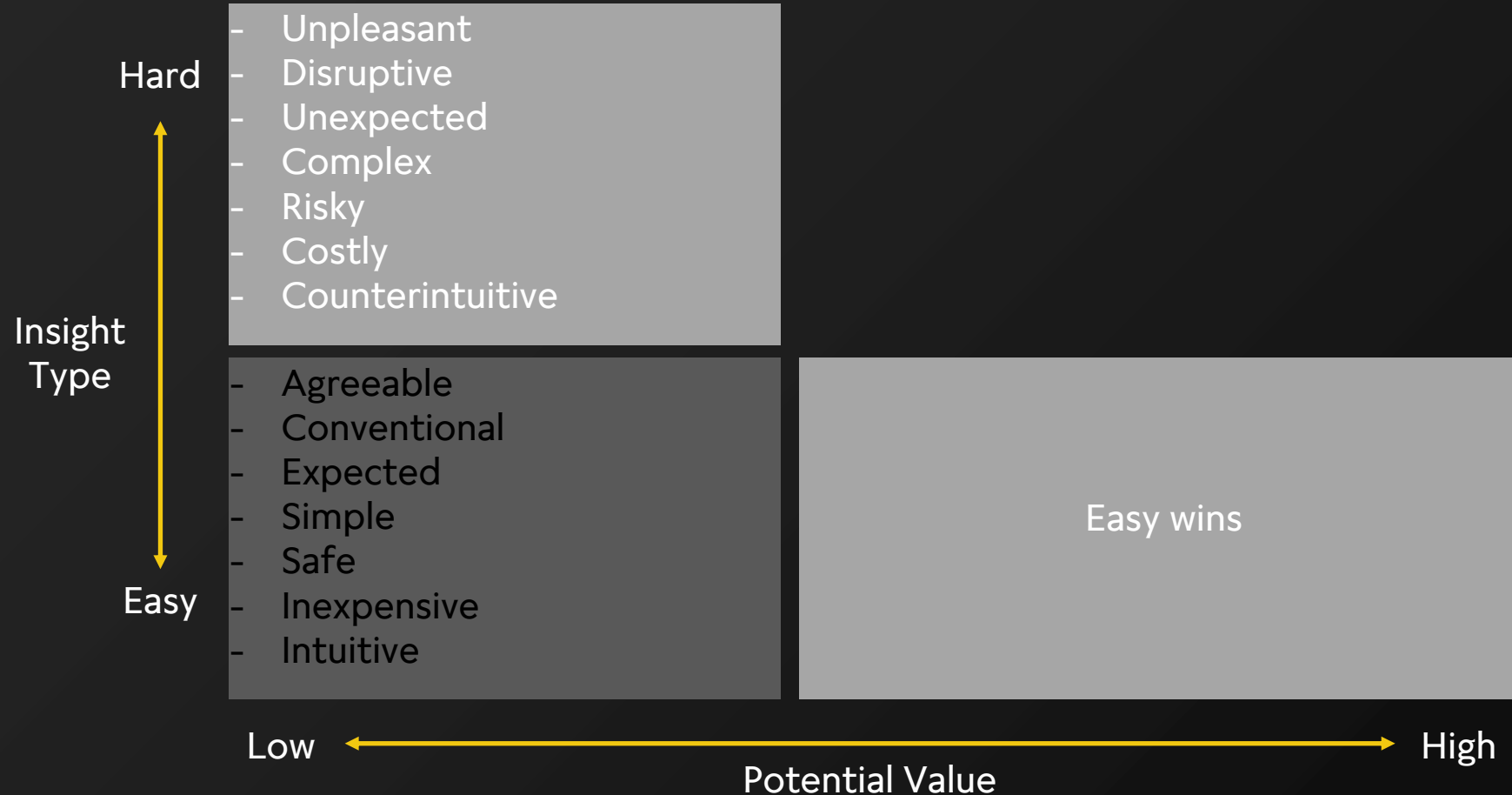
The “Story Zone”



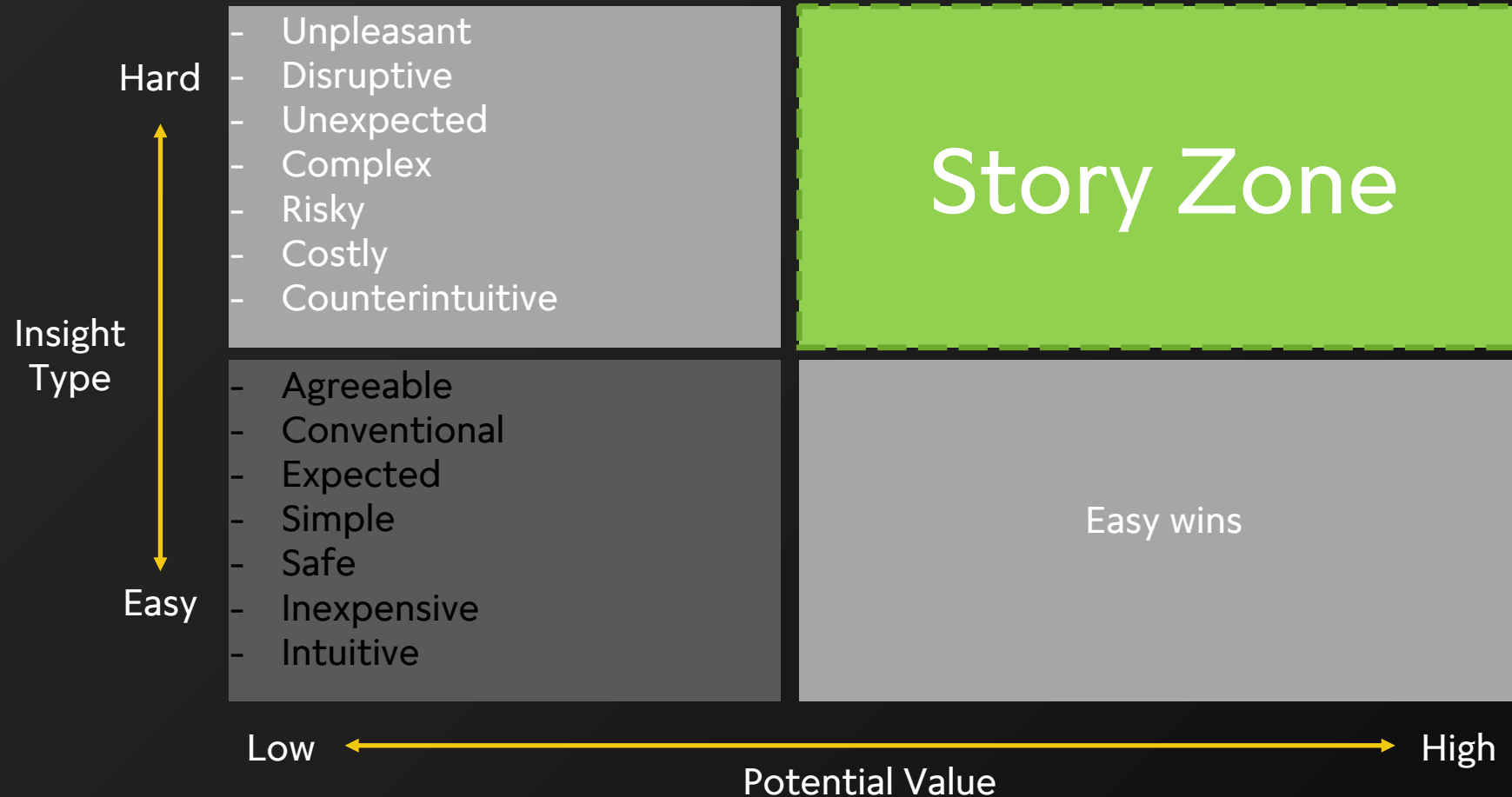
The “Story Zone”



The “Story Zone”



The “Story Zone”



6 Essential Data Storytelling Components

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Data Foundation

6 Essential Data Storytelling Components



Data Foundation



Main Point

6 Essential Data Storytelling Components



Data Foundation



Main Point



Explanatory Focus

6 Essential Data Storytelling Components



Data Foundation



Main Point



Explanatory Focus



Linear Sequence

6 Essential Data Storytelling Components



Data Foundation



Main Point



Explanatory Focus



Linear Sequence



Dramatic Elements

6 Essential Data Storytelling Components



Data Foundation



Main Point



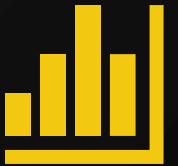
Explanatory Focus



Linear Sequence



Dramatic Elements



Visual Anchors

6 Essential Data Storytelling Components



Data Foundation



Main Point



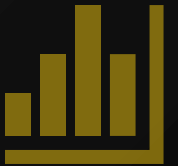
Explanatory Focus



Linear Sequence



Dramatic Elements



Visual Anchors

DEMO

Summary

Summary

- Defined Data Storytelling

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- What problems Data Storytelling helps solve

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- Constituents of a data story (3 elements and 6 components)

Summary

- Defined Data Storytelling
- What problems Data Storytelling helps solve
- When to tell data stories and when not to
- Constituents of a data story (3 elements and 6 components)
- How we can use some of these techniques in Power BI

Thank you!

Any questions?