

Evaluating Indigenous Design Features Using Cultural Dimensions

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Research Question

1. What design features should be incorporated into a website to meet the cultural requirements of this Indigenous group? (Wollotuka)

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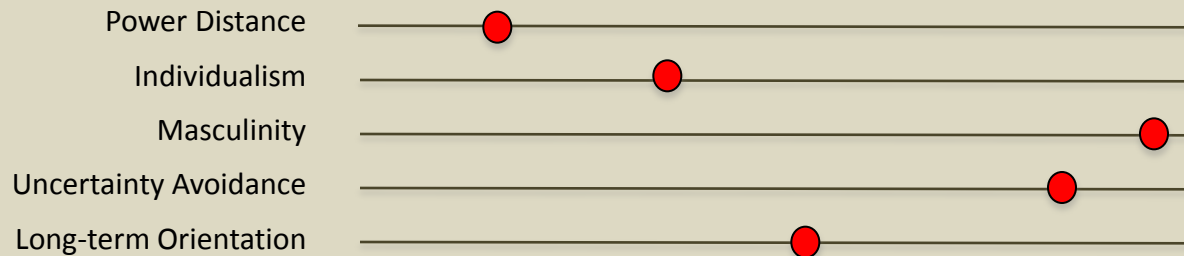
Representing cultural identity
(tasks? usability? aesthetics?)

Key Design Features

Designing with Cultural Dimensions

One approach for designing cultural artifacts is to ...

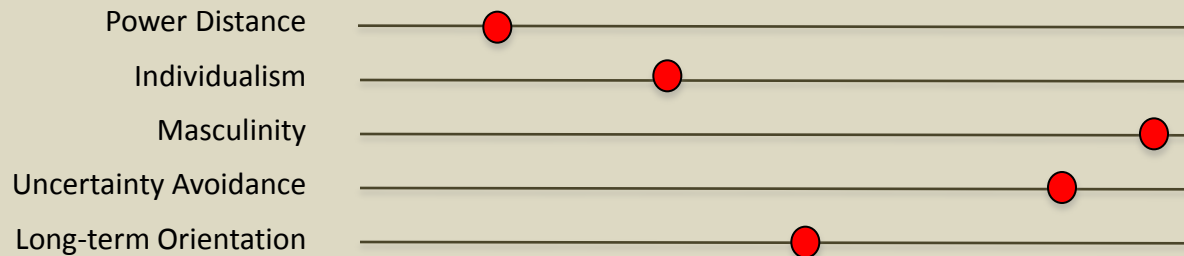
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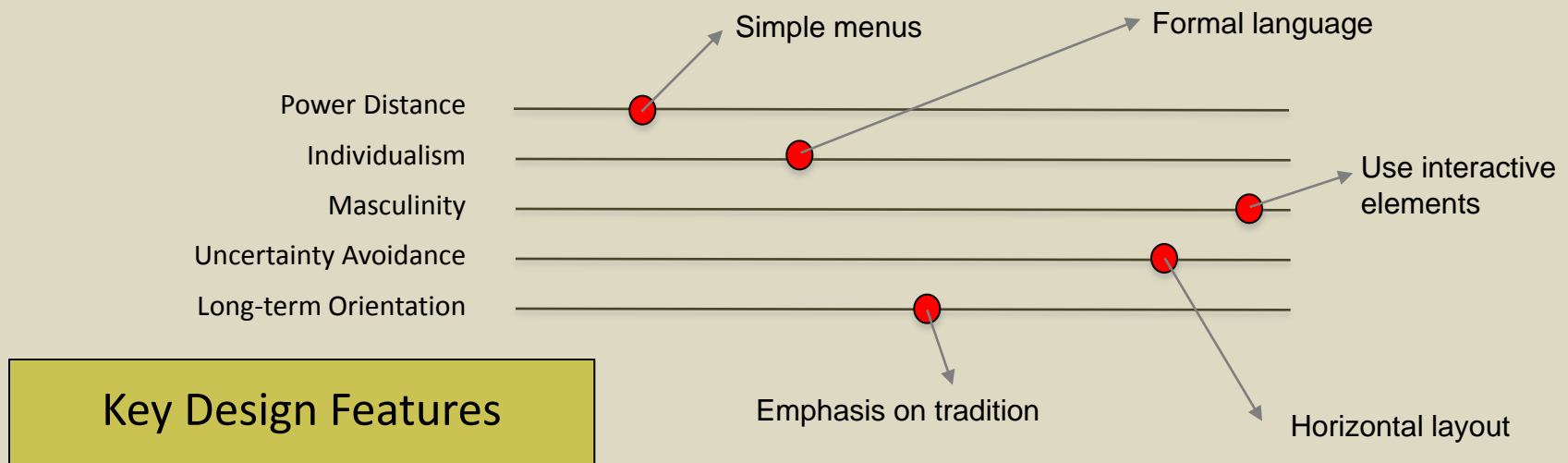
Key Design Features

2) Use appropriate design features based on the target groups position along each dimension

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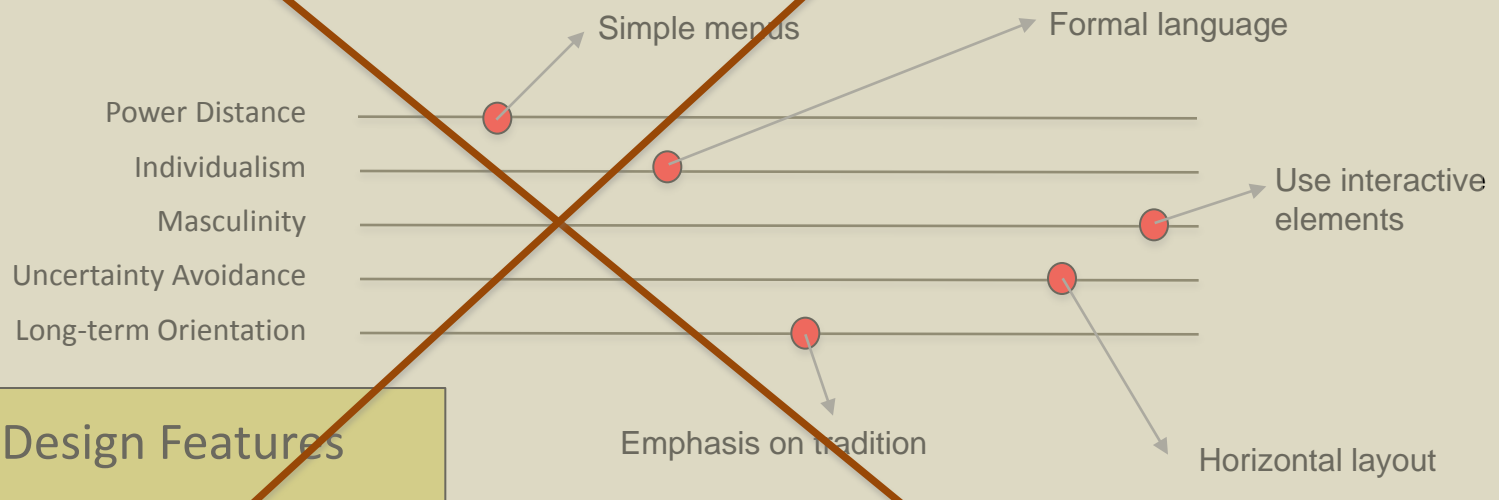


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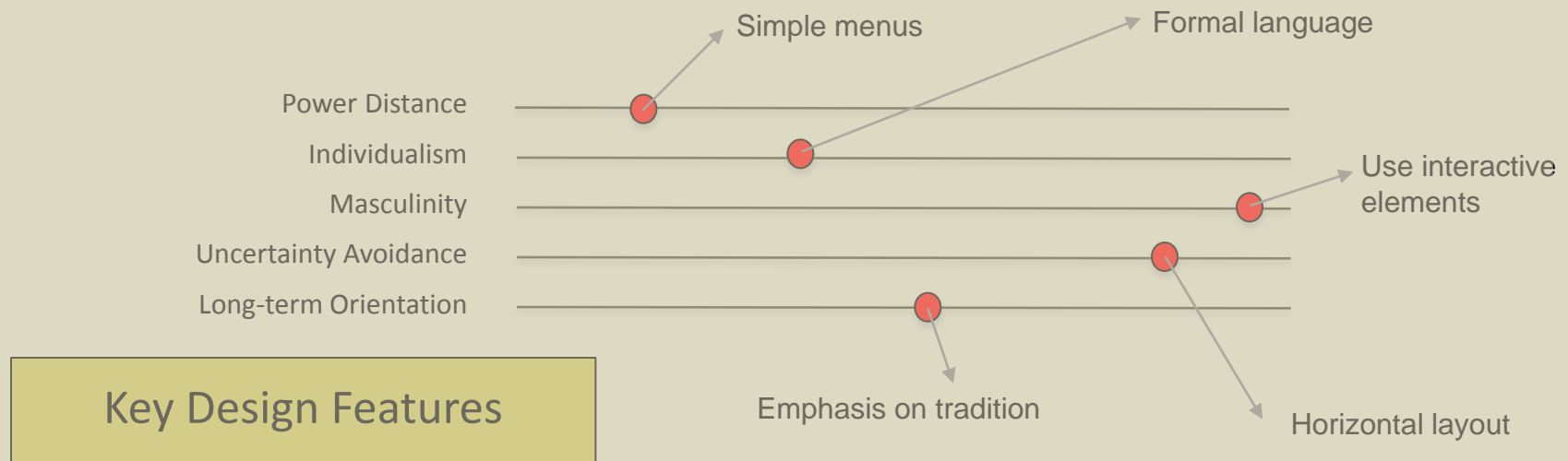
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Designing with Cultural Dimensions

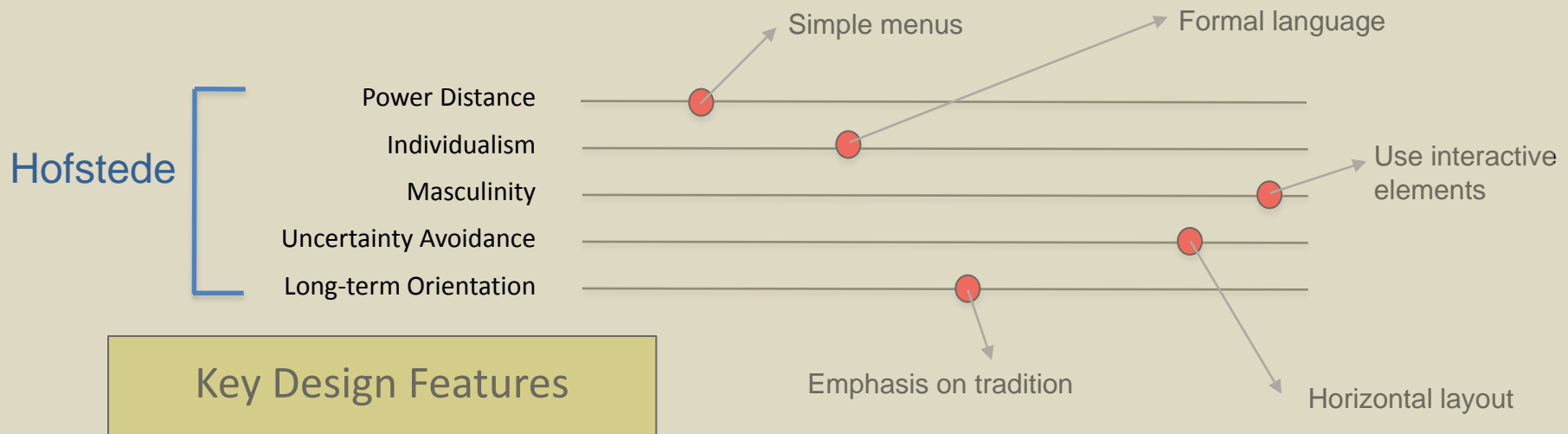
Subjective scales that are hard to measure.
(Nor are they independent)



Choosing the most appropriate cultural measures is difficult (~30 different dimensions previously suggested)

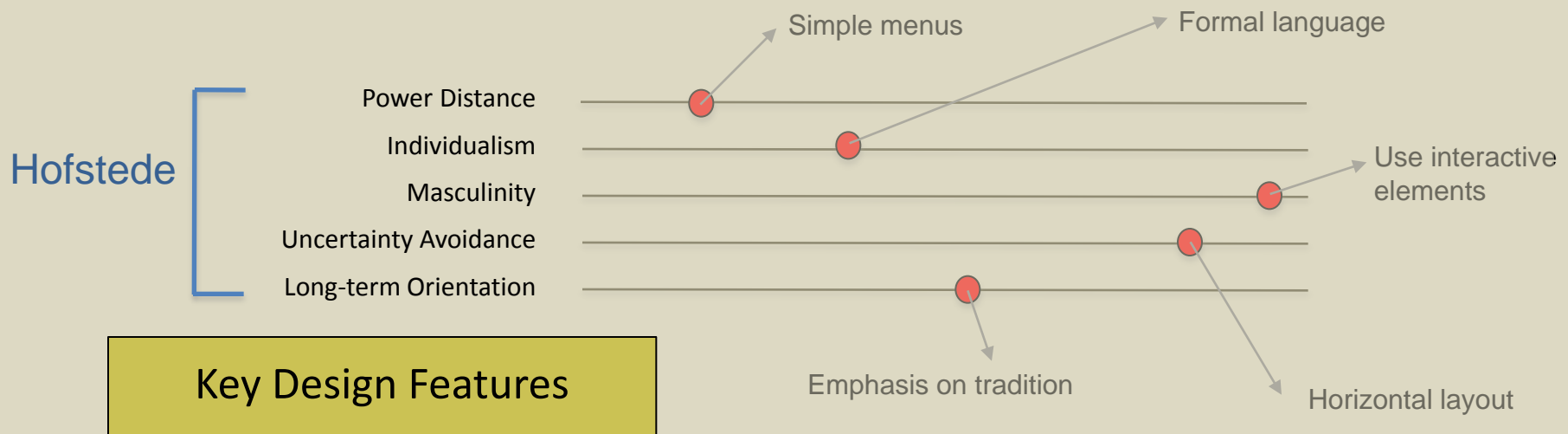
Designing with Cultural Dimensions

However, a lot of previous IT studies adopt Hofstede's cultural dimensions



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Many of these studies examine correlations between Hofstede's dimensions and **design features**

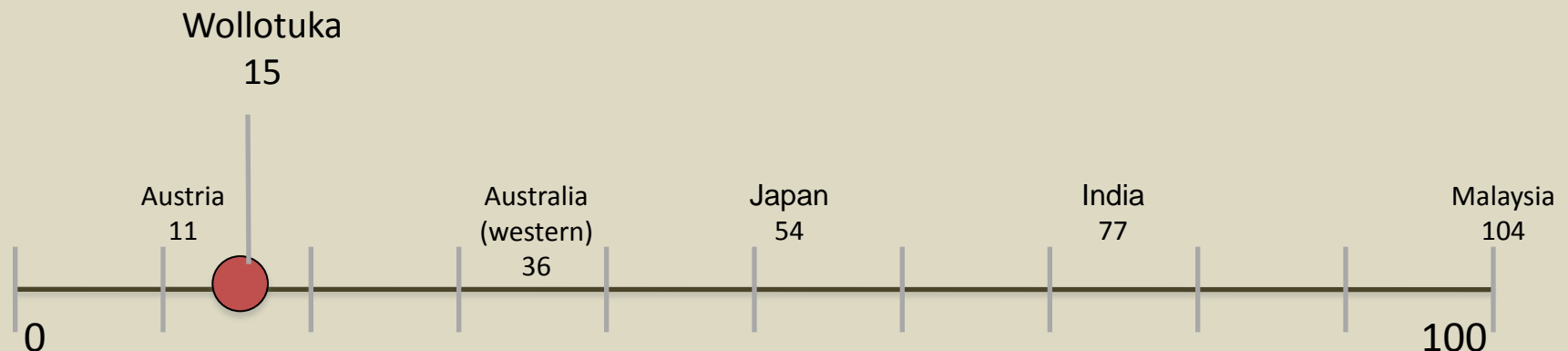
Power Distance - How power is distributed in society (centrally or across society)

Distributed Power

all have equal rights
government based on majority
short organizational pyramids
subordinates expect to be consulted
teachers treat students as equals

Centralised Power

those in power have privileges
military/autocratic/oligarchic government
tall organizational pyramids
subordinates expect to be told
students dependent on teachers



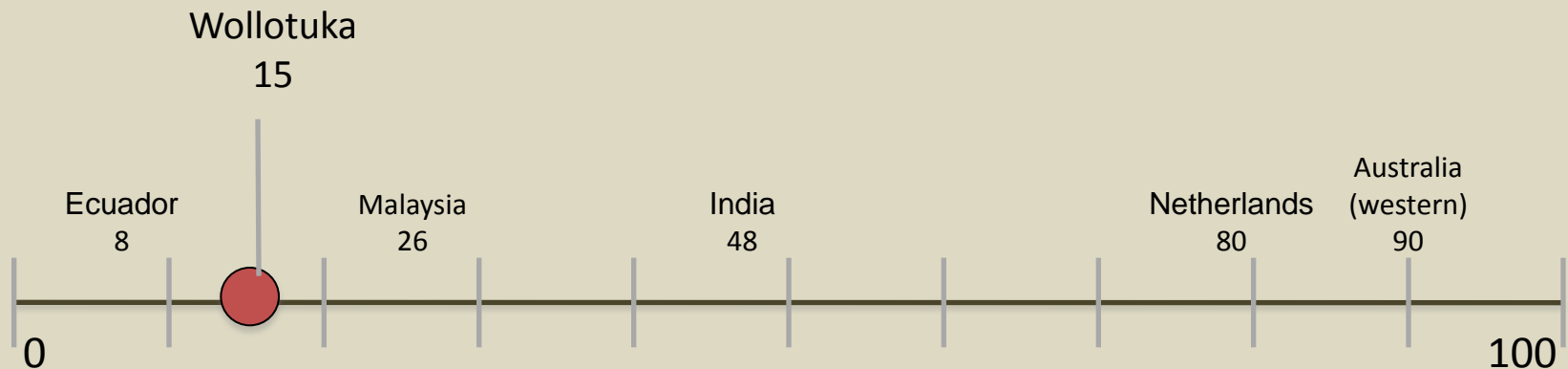
Individualism - The relationship between larger, social groups and individuals.

Collectivism

Loyalty to group
Group orientation
Identity based on social system
Decisions (what is best for the group)
“We” mentality
Emphasis on belonging

Individualism

People taking care of themselves
Self-orientation
Identity based on individual
Making decisions based on individual needs
“I” mentality
Emphasis on individual achievement



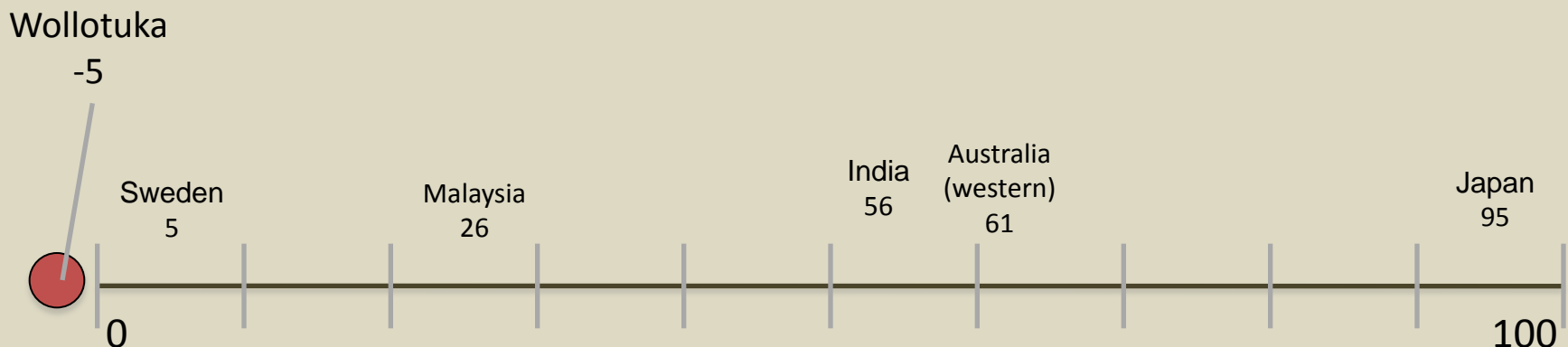
Masculinity – To what extent the society stress achievement or nurture.

Femininity

Relationship oriented
Quality of life and people are important
Work in order to live
More women in management
Flexible family structure
Both boys and girls cry; neither fight

Masculinity

Ego oriented
Money and things are important
Live in order to work
Fewer women in management
Traditional family structure
Girls cry, boys don't; boys fight, girls don't



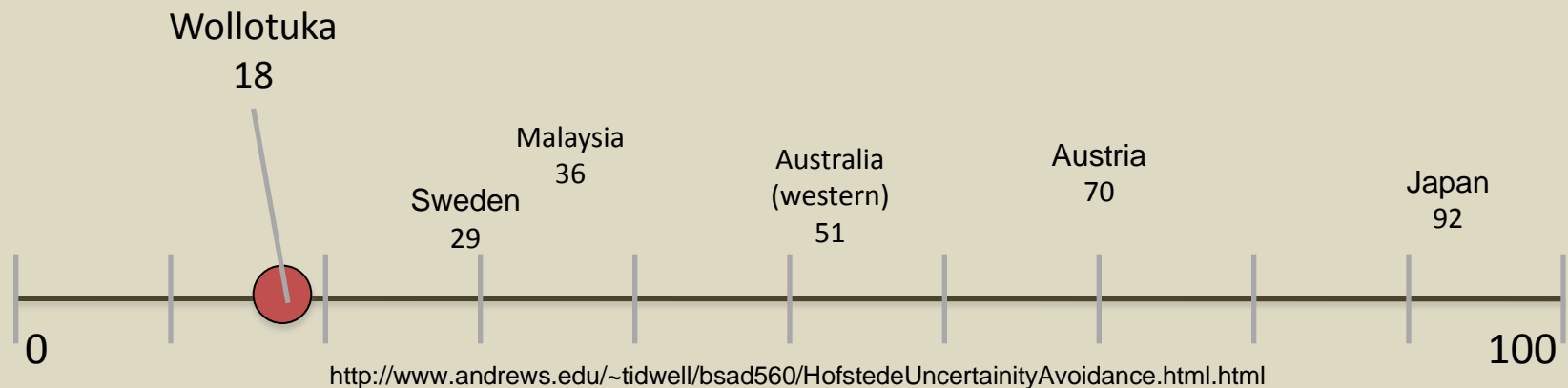
Uncertainty Avoidance – extent to which culture feels threatened by ambiguity

Low Uncertainty

Open to change
Avoid rituals and ceremony
Teachers may say “don’t know”
Open-ended learning
Fewer gender roles

High Uncertainty

Conservative
Ritualized/ceremonial
Teachers have all the answers
Structured learning
Traditional gender roles



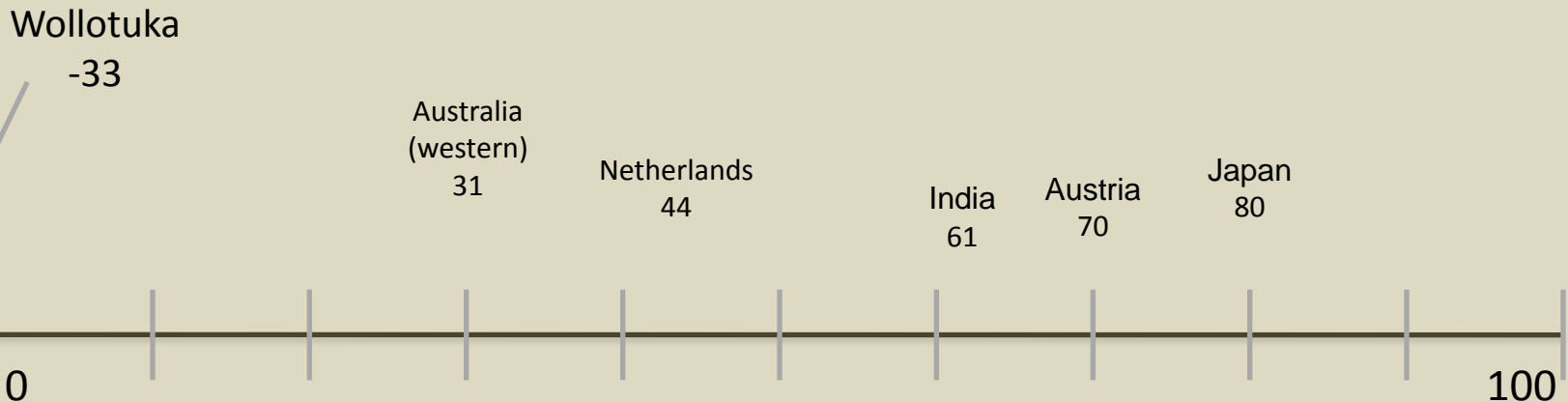
Long Term Orientation – fostering of virtues towards future rewards (perseverance and thrift)

Short Term

Emphasis on quick results
Steadfastness and stability
Face – common but seen as weakness
Spend
Belief in absolutes about good or evil

Long Term

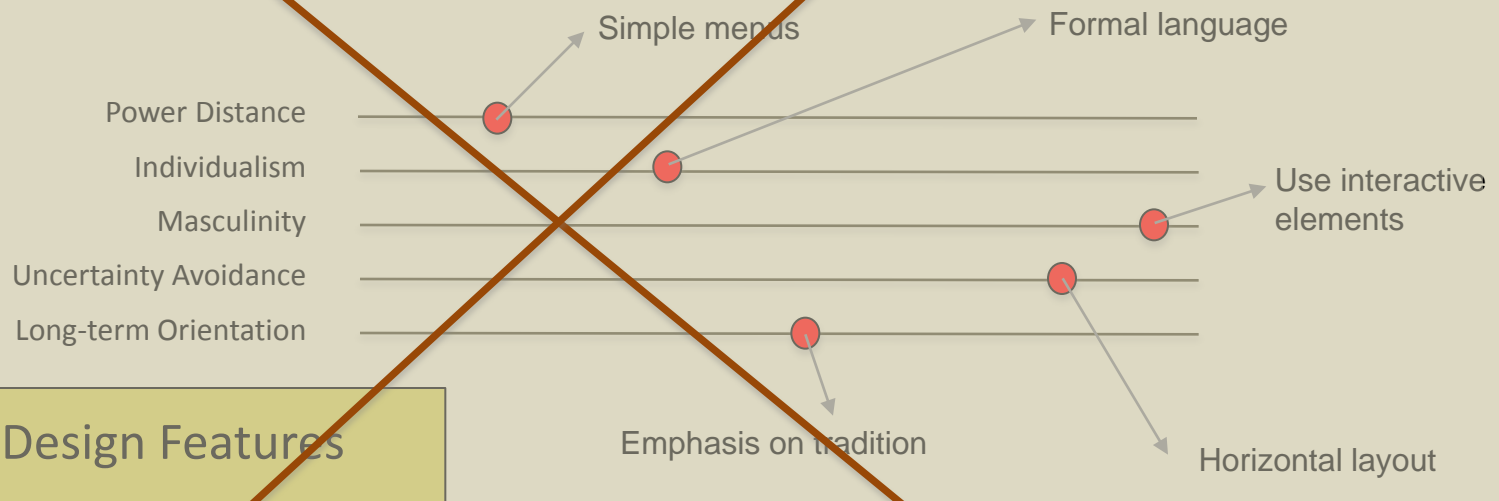
Emphasis on persistence
Adaptability important
Protecting ones face important
Save, be thrifty
Good or evil depends on circumstances



Designing with Cultural Dimensions

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1) First categorize the target group along some well-defined cultural dimensions.



2) Use appropriate **design features** based on the target groups position along each dimension

Designing with Cultural Dimensions

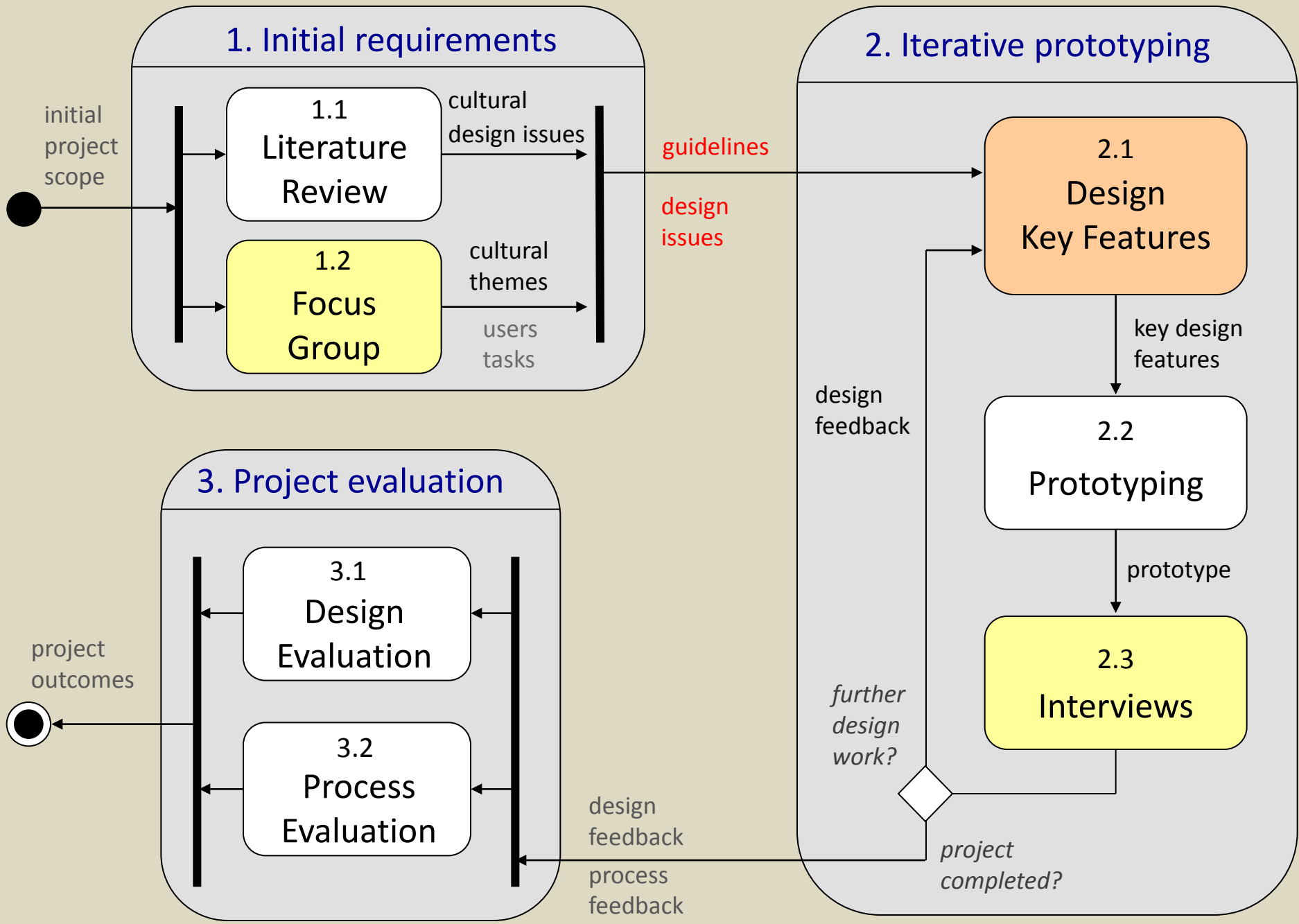
One approach for designing cultural artifacts is to ...

1) First categorize the target group along some well-defined cultural dimensions.

We used an extended ethnographic design process which incorporated a focus group, iterative prototypes and 1 on 1 interviews to identify the key cultural **design features**.

Key Design Features

2) Use appropriate **design features** based on the target groups position along each dimension



1.2 Focus Group

George, R., Nesbitt, K., Donovan, M., Maynard, J. (2011). *Focusing on Cultural Design Features for an Indigenous Website* Proc. 22nd Australasian Conference on Information Systems (ACIS2012), Sydney, Australia.

Cultural themes

Visual Imagery

Kinship

Language

Humor

Community feeling

Music, dance and ceremony

2. Iterative Prototyping

Key Design Features

Virtual tour of the school and surrounds
Satellite image map
The use of videos (incorporating community)
Online games (with Indigenous images and style)
Images of community events and links.
A feedback system
Indigenous Wiki
The single page layout
Traditional dot images, colors, handwritten fonts
Use of informal English

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How do our design features compare to results from other studies – correlating design features with Hofstede dimensions?

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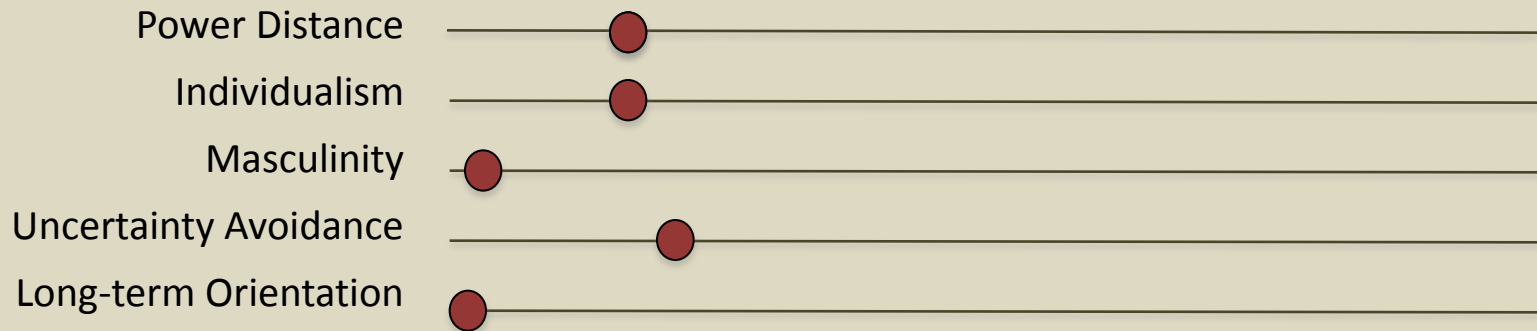
Indigenous Wiki

The single page layout

Traditional dot images, colors, handwritten fonts

Use of informal English

We used the 2008 Hofstede value survey to position the group along the five cultural dimensions.



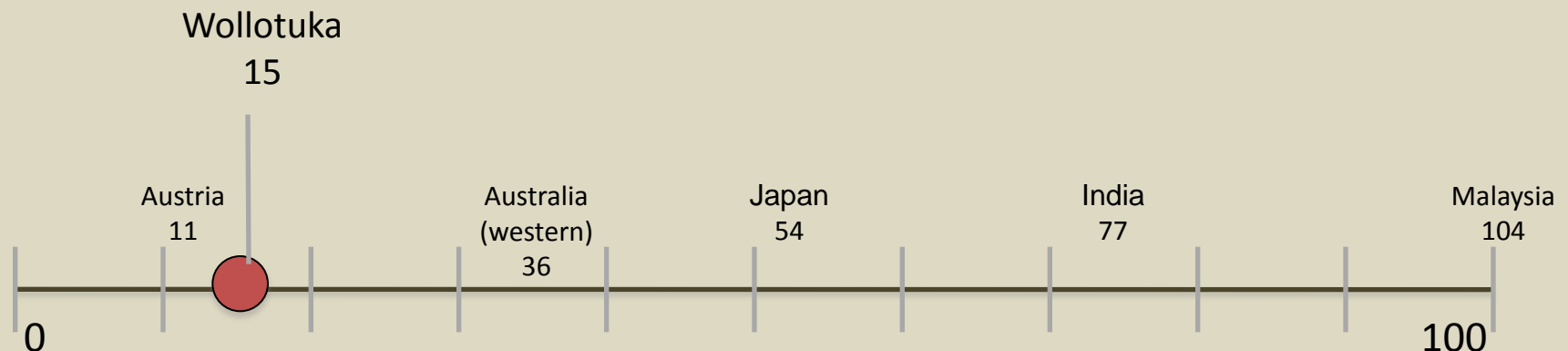
Power Distance - How power is distributed in society (centrally or across society)

Distributed Power

Less structured access to information & shallow hierarchies.
Less focus on expertise, authority, and official logos.
Fewer access barriers.
Photos of students.
Images of both genders.
Images of public spaces and everyday activities.

Centralised Power

Significant emphasis on social and national order in symbols.
Access restrictions.
Photos of faculty.
Photographs of leaders and monumental buildings
Images of monuments
Symmetrically designed sites



Individualism - The relationship between larger, social groups and individuals.

Collectivism

Include socio-political achievements

Emphasize history and tradition.

Emphasis on state of being.

Use of formal speech.

Images of groups and older people.

Individualism

Frequent images of success.

Personal information.

Emphasis on action.

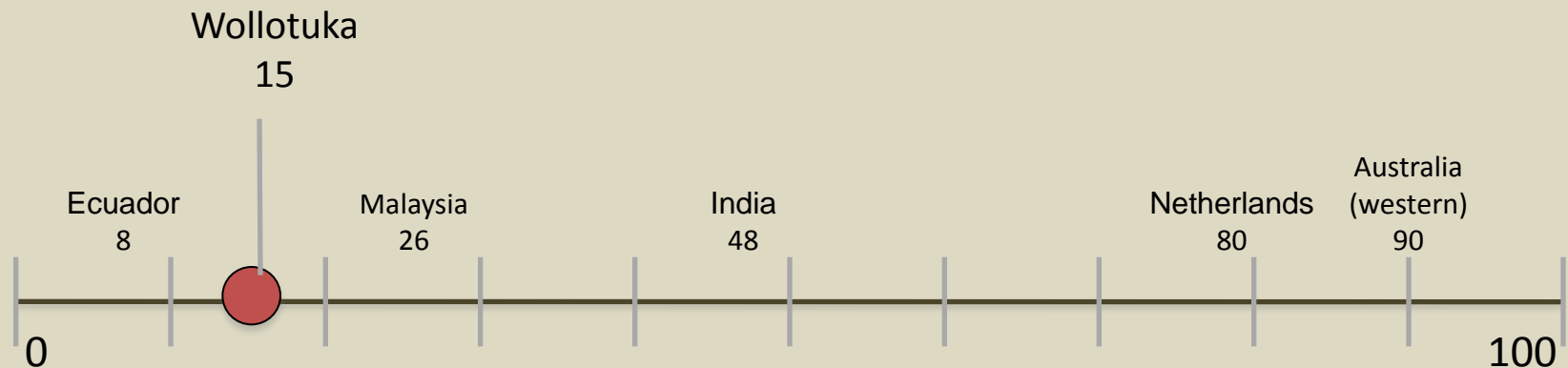
Frequent pictures of individuals.

Direct address.

Expression of private opinion.

Individual success stories.

Images of individuals & young.



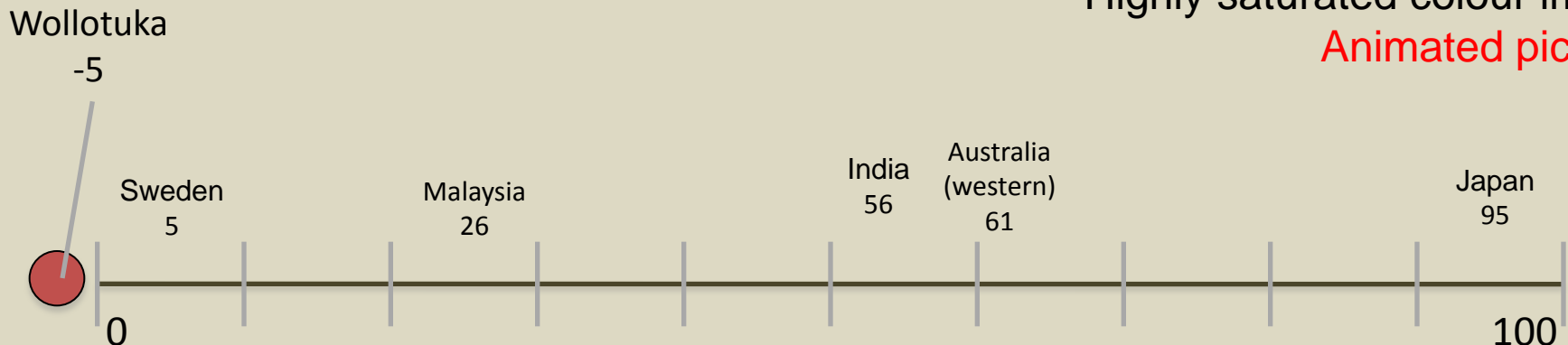
Masculinity – To what extent the society stress achievement or nature.

Femininity

Emphasis on visual aesthetics.
Support cooperation and exchange of information.
Images of people, laughing, talking or studying together.
Multiple choices.
Orientated toward relationships.
Figurative images.
Black & white (two tone) images

Masculinity

Focus on task efficiency.
Navigation oriented toward exploration and control.
Utilitarian graphics.
Interactive elements like games and animations.
Emphasis on tradition & authority.
Frequent images of buildings.
Limited choices.
Orientation toward goals.
Highly saturated colour images
Animated pictures.



Uncertainty Avoidance – extent to which culture feels threatened by ambiguity

Low Uncertainty

More complex designs.

Variety of choices.

Long pages with scrolling.

Abstract images.

Fewer links.

Vertical page layout.

Abstract images.

Pictures of students & people.

High Uncertainty

Simple with clear metaphors.

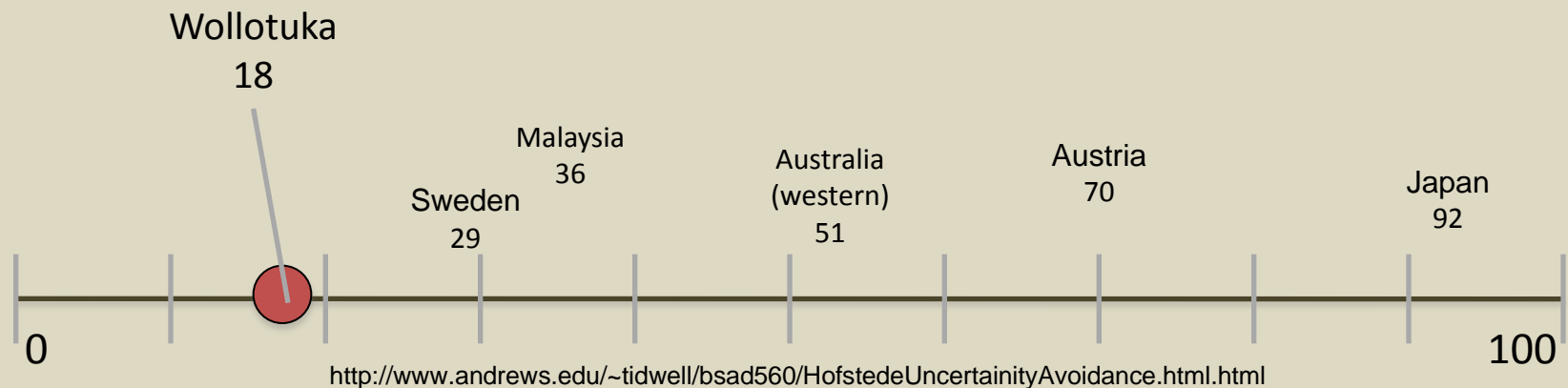
Restricted amounts of data

Formal organization charts, rules, regulations, extensive legalese.

References to daily life.

Horizontal page layout.

More pictures of buildings.



Long Term Orientation – fostering of virtues towards future rewards (perseverance and thrift)

Short Term

Emphasis on allowing the user to accomplish tasks quickly.

Few references to tradition.

Emphasis on current events.

Present clear strategic plans.

Long Term

Emphasis on tradition and history.
Provide archives of early photos & images of founders.

Make frequent references to the distant future.

Wollotuka
-33

Australia
(western)
31

Netherlands
44

India
61

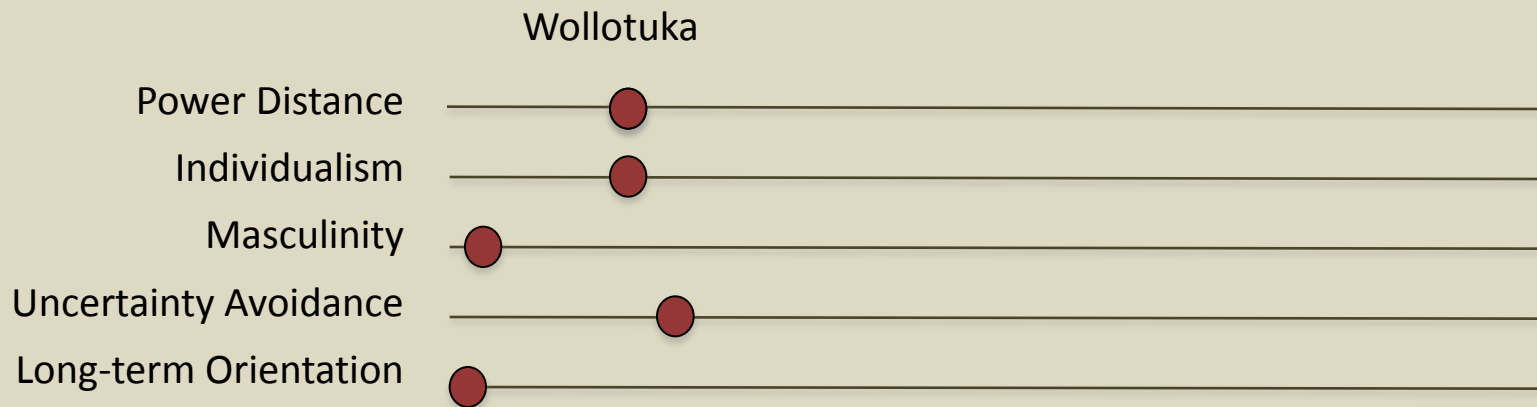
Austria
70

Japan
80

0

100

How do our design features compare to results from other studies – correlating design features with Hofstede dimensions?



Mixed result - There were a number of good correlations with previous studies – and some equally clear disagreement with some features.

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Thanks