

# What can help older people enjoy the outdoors more?



Choice-based scenarios comparing natural and non-natural physical features

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# Background



**People are more satisfied with life when having pleasant, safe and well-furnished outdoor spaces.**

**Abundance of trees and plants not only contributes to the pleasantness of such places but, when coupled with high-quality pathways, has a significant impact on walking behaviour.**

**However, going outdoors can be difficult due to increasing frailty and environmental barriers. A preferred neighbourhood environment can facilitate older people's outdoor activities and enhance their well-being.**

# Good paths afford easy locomotion



# Waterscapes afford good views



# Seats afford resting



# Main Objective



The objective of this study is to examine what are the preferred environmental features for a local open space and to understand the trade-offs between competing environmental attributes.

# Data Collection Method

Postal questionnaire (2200 older people living in 20 local authorities)

$n = 211$

Distribution through local housing associations (older people living in sheltered housing)

$n = 102$

Translated sessions (2 minority ethnic groups)

$n = 22$

**Total Sample Size**

$n = 335$

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**Choice-based conjoint questionnaire**

$n = 237$

# Objectives

- Investigate the relative importance (i.e. utilities) of outdoor environment attributes
- Examine change in the levels of the attributes
- Map potential trade-off scenarios between natural and non-natural features of open spaces

# Methodology

- Choice-based conjoint questionnaire
- Partial profile design
- Use of Sawtooth software

# Questionnaire Design: Attributes & Levels



## Distance

0-5 minutes walk

5-10 minutes walk

10-15 minutes walk

15 minutes or more

## Facility

Café/Toilets

No special facility

## Pavement

### existence

Pavement all the way

Pavement part of the way

No pavement

## Nuisance

Youngsters hanging around

Dog fouling

Signs of vandalism

No particular nuisance

...

# Questionnaire Design: Attributes & Levels



## 1. Distance

0-5 minutes walk

5-10 minutes walk

10-15 minutes walk

15 minutes or more

## 2. Pavement existence

Pavement all the way

Pavement part of the way

No pavement

## 3. Pavement quality

High quality pavement

Low quality pavement

## 4. Tree along footpath

Tree-lined paths

No trees along paths

# Questionnaire Design: Attributes & Levels



## 5. Seats en route

Some seats en route

No seats en route

## 6. Traffic

Light traffic en route

Medium traffic

Heavy traffic

## 7. Tree/Plants

Dense trees/plants

Many trees/plants

Some trees/plants

No trees/plants

## 8. Facility

Café/Toilets

No special facility

# Questionnaire Design: Attributes & Levels

## 9. Seats

Many seats in the park  
Few seats in the park

## 10. Things to watch

Good views  
Wildlife  
Other's activities  
Nothing special to watch

## 11. Maintenance

Well maintained  
Not well maintained

## 12. Nuisance

Youngsters hanging around  
Dog fouling  
Signs of vandalism  
No particular nuisance

## 13. Water feature

Some water feature  
No water feature

# Questionnaire Design: Attributes & Levels



## **13. Water feature**

Some water feature

No water feature

## **14. Public transport**

Easy access to public  
transport

No easy access to public  
transport

## **15. Car park**

Car park nearby

No car park

# Choice-Based Conjoint Questionnaire



Fourteen pairs of public open spaces (eg, town or local park) are shown below. Four features of each open space are described in the box. (Please assume that the two parks are different only in these features.) In each question, please compare the two parks and choose the one **you would prefer as your local open space** and tick the box.

We would be very grateful if you could return this survey by 10 February 2006. We appreciate your time and effort.

## ❖ QUESTION 1 ❖

<input type="checkbox"/> <b>Park 1</b>	
No trees and few plants	Has toilets
.....	.....
Dog fouling	No car park nearby

<input type="checkbox"/> <b>Park 2</b>	
Some trees and plants	Has no special facility
.....	.....
Youngsters hanging around	Car park nearby

# Choice-Based Conjoint Questionnaire

## ❖ QUESTION 2 ❖

<input type="checkbox"/> <b>Park 1</b>	
Heavy traffic (including lorries)	Few seats in the park
Nothing special to watch	Signs of vandalism

<input type="checkbox"/> <b>Park 2</b>	
Medium traffic on route	Many seats in the park
Other's activities to watch	No particular nuisance

## ❖ QUESTION 3 ❖

<input type="checkbox"/> <b>Park 1</b>	
Takes 10-15 min walk to get to	No seats en route
Many, well-spaced trees and plants	Wildlife in the park

<input type="checkbox"/> <b>Park 2</b>	
Takes 5-10 min walk to get to	Some seats en route
Some trees and plants	Good views from the park

# What about Choice-Based Conjoint Analysis?



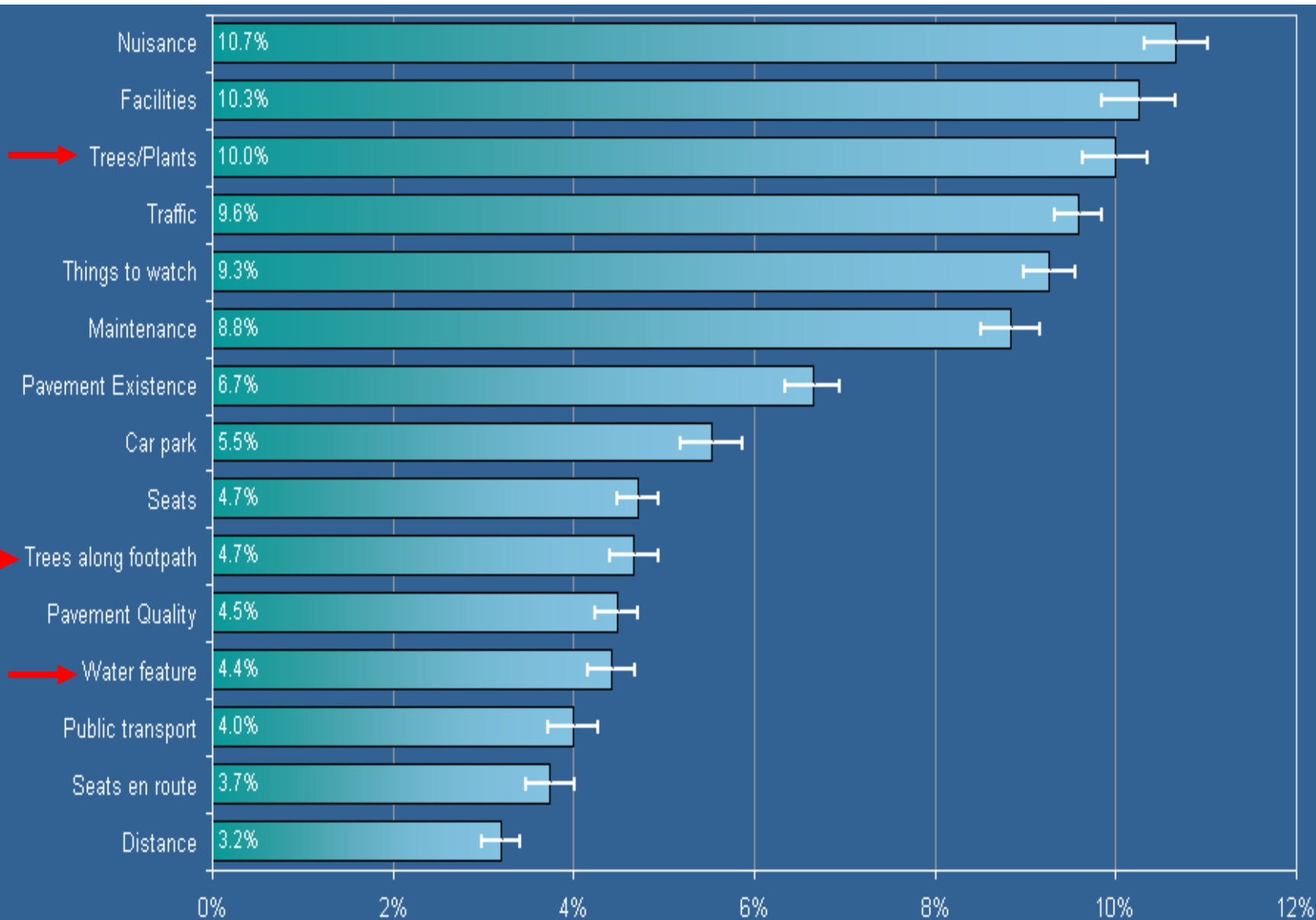
- 1) Provides information on the relative impact of change of one attribute versus another
- 2) Full set of preference scores (part-worth utilities)
- 3) Utilities generated in conjoint are based on relative consideration of all attributes
- 4) Choice task is more realistic
- 5) Use of Marketing Decision Simulator

# What are older people's preferred environmental features for their local open space?

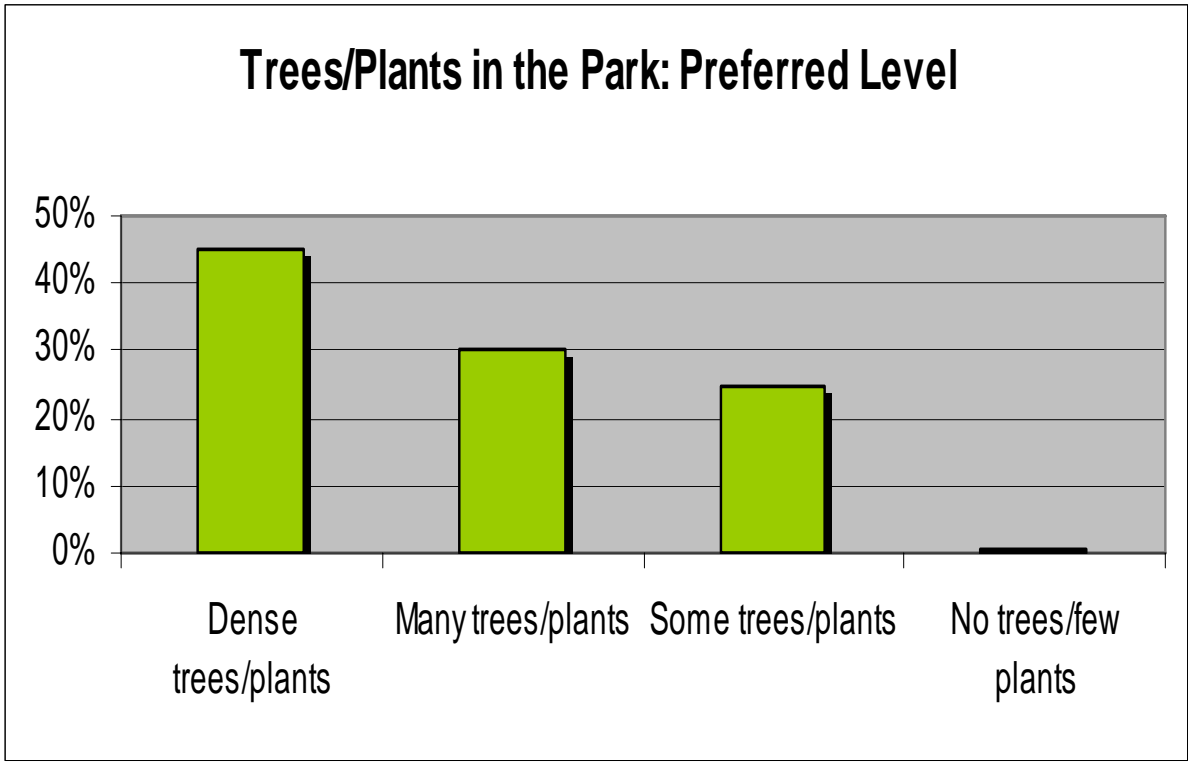
Older people prefer an open space:

- without nuisance
- with cafes and toilets
- **with dense trees and plants**
- light traffic
- wildlife to watch
- well maintained

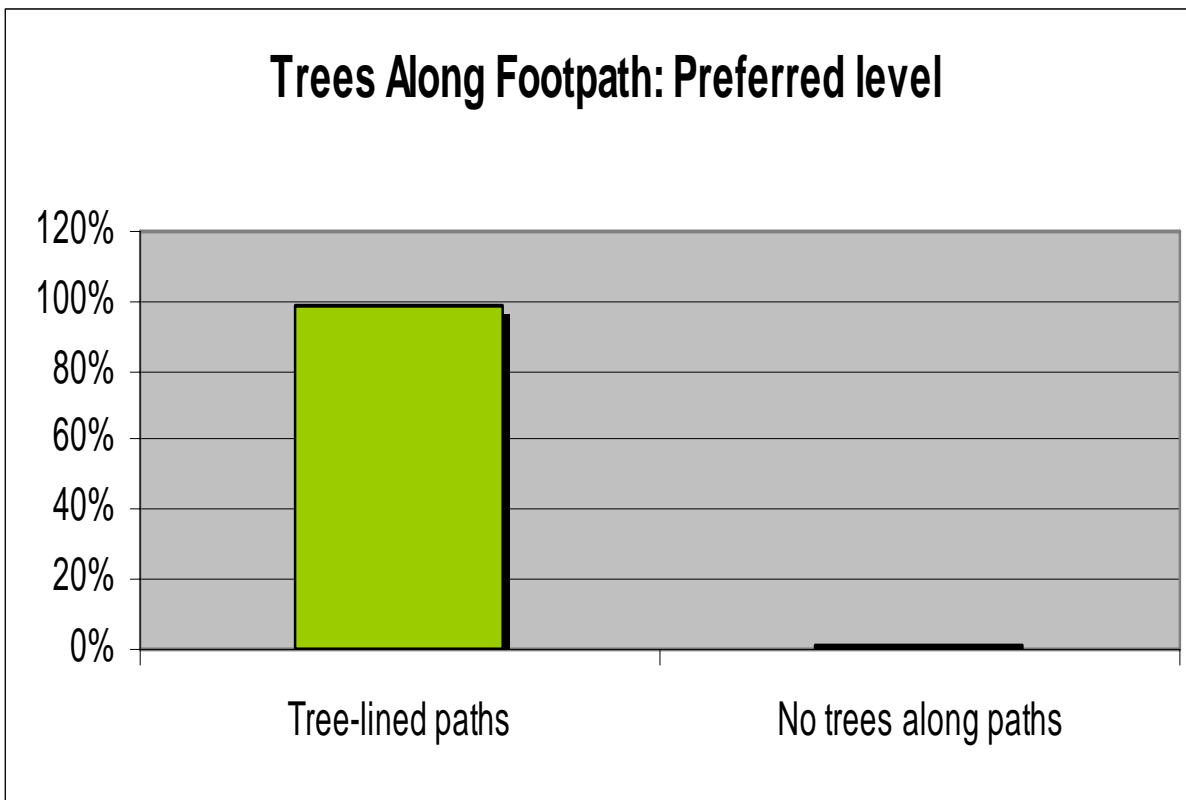
# Preferred environmental features for local open space



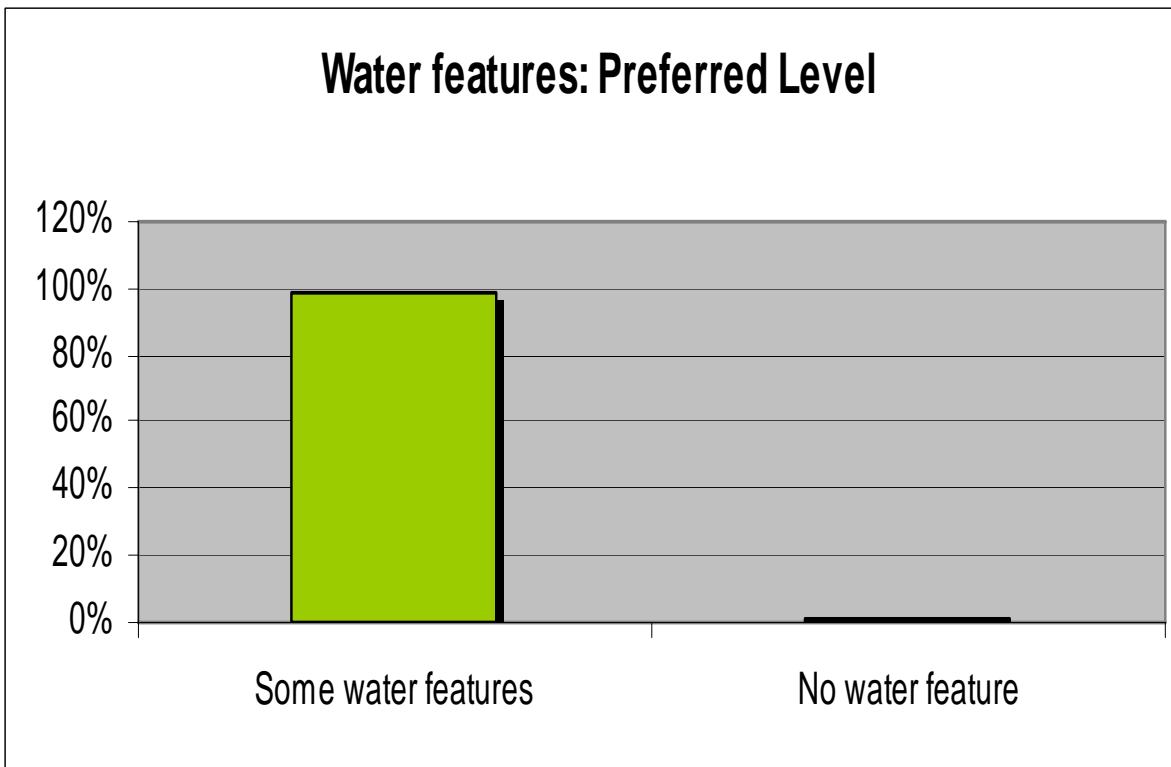
# What are participants' preferences for sub-levels of attributes?



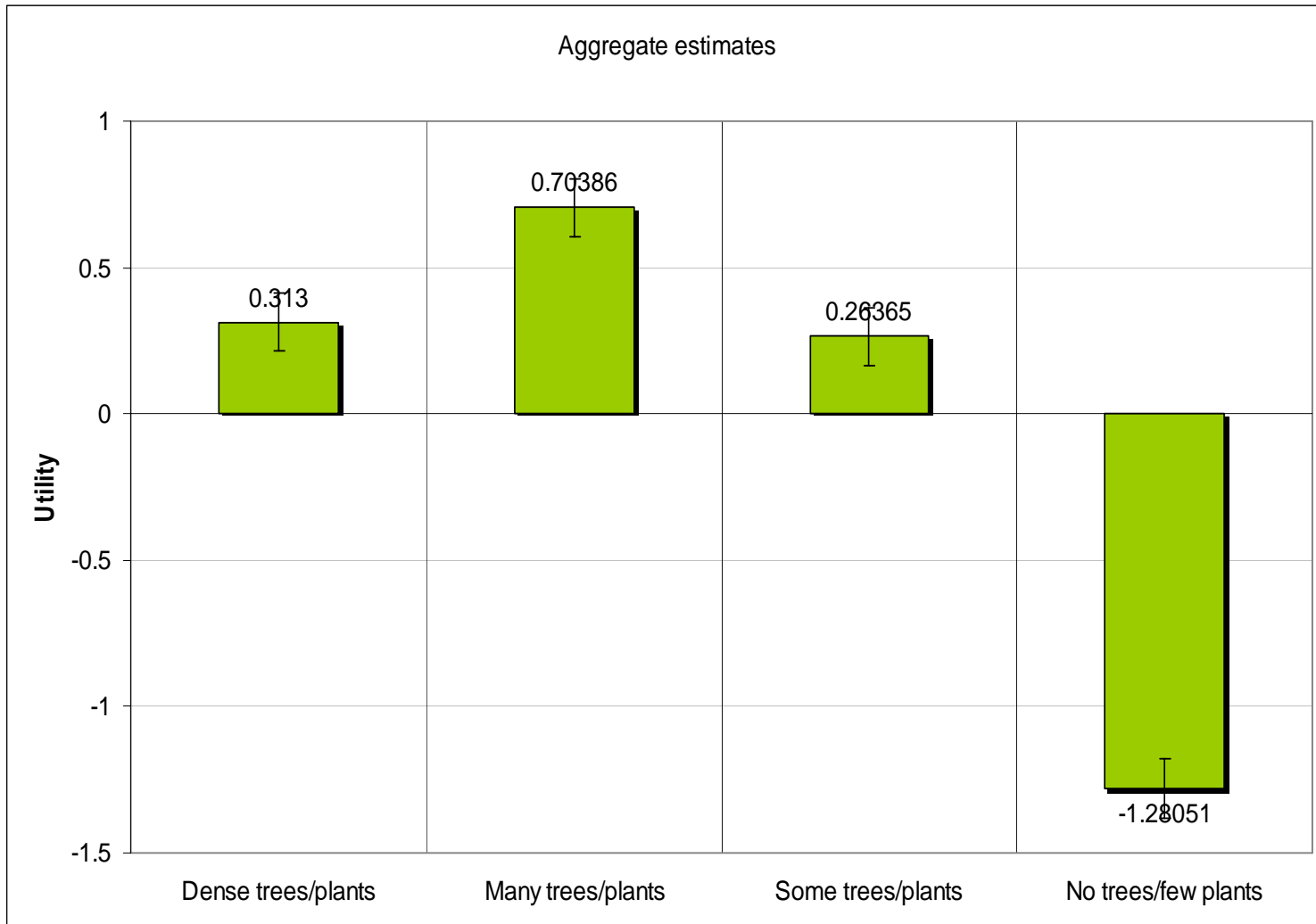
# What are participants' preferences for environmental features within Attributes?



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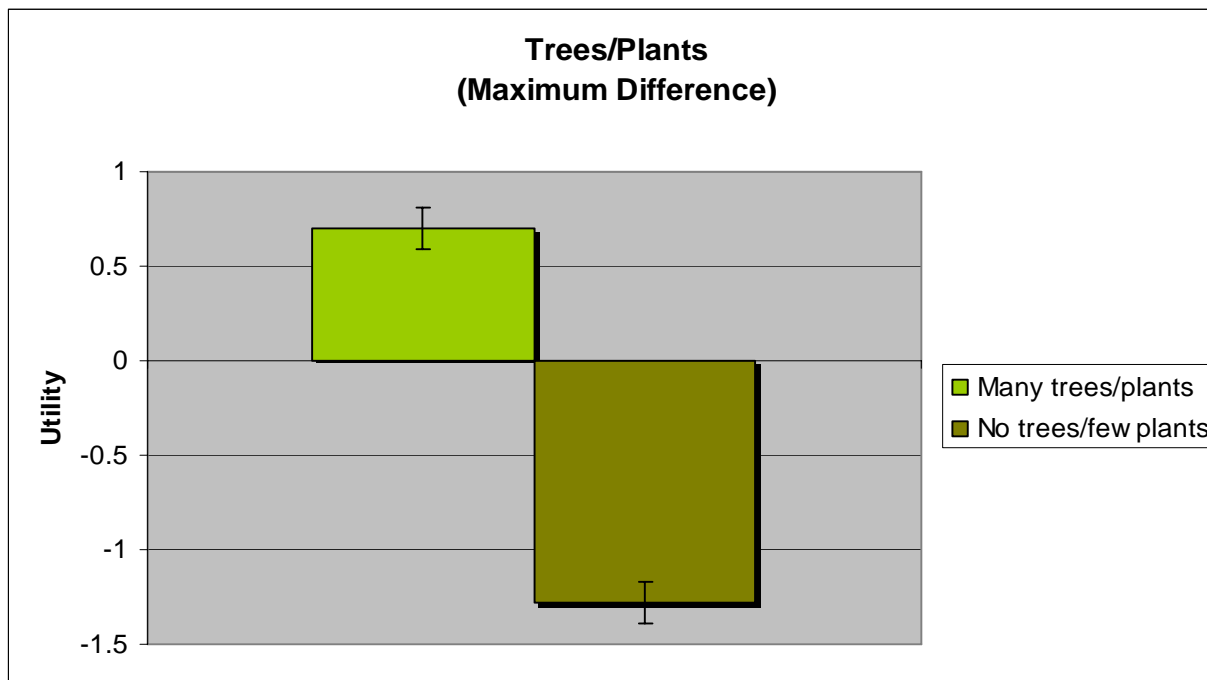


# What is the most significant shift within attribute sub-levels?



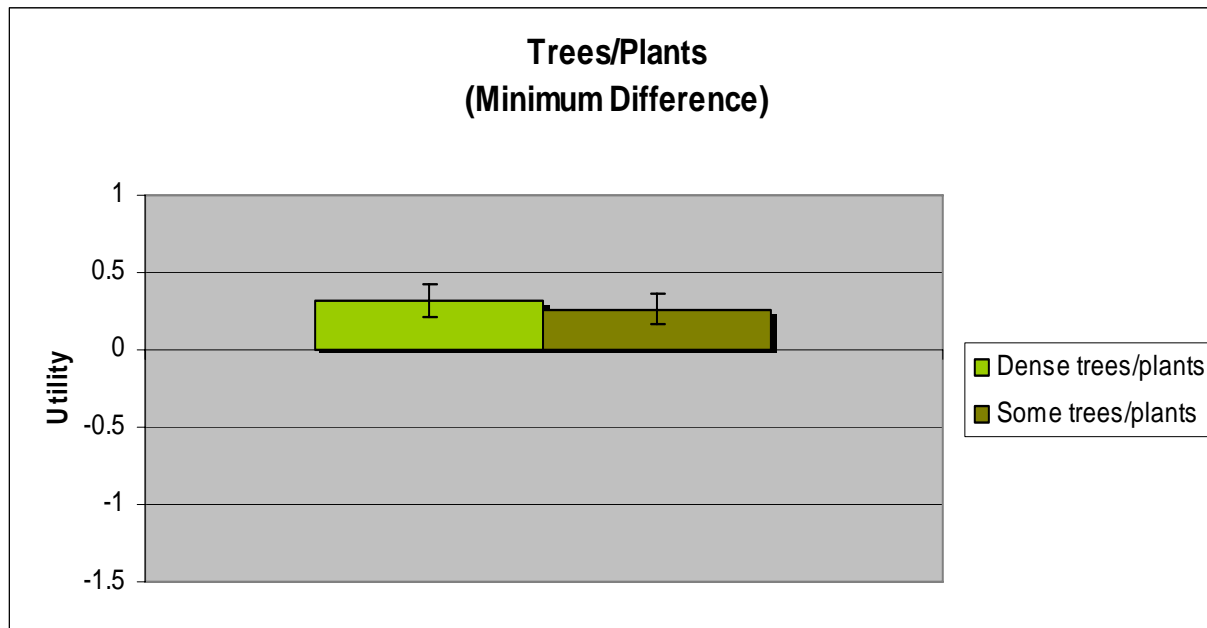
# What is the most significant shift within attribute sub-levels?

## Most significant shift within attribute

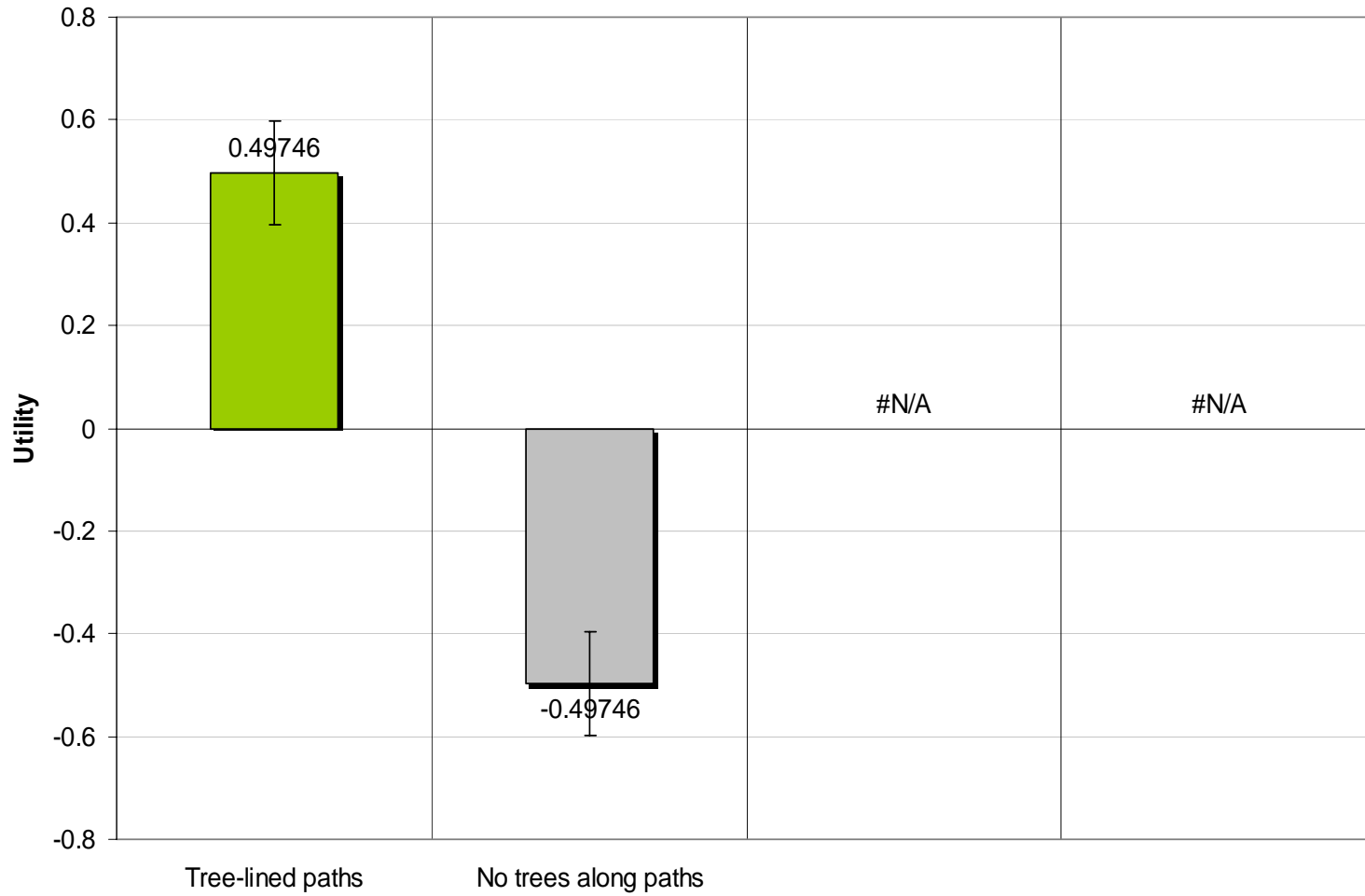


# What is the least significant shift within attribute sub-levels?

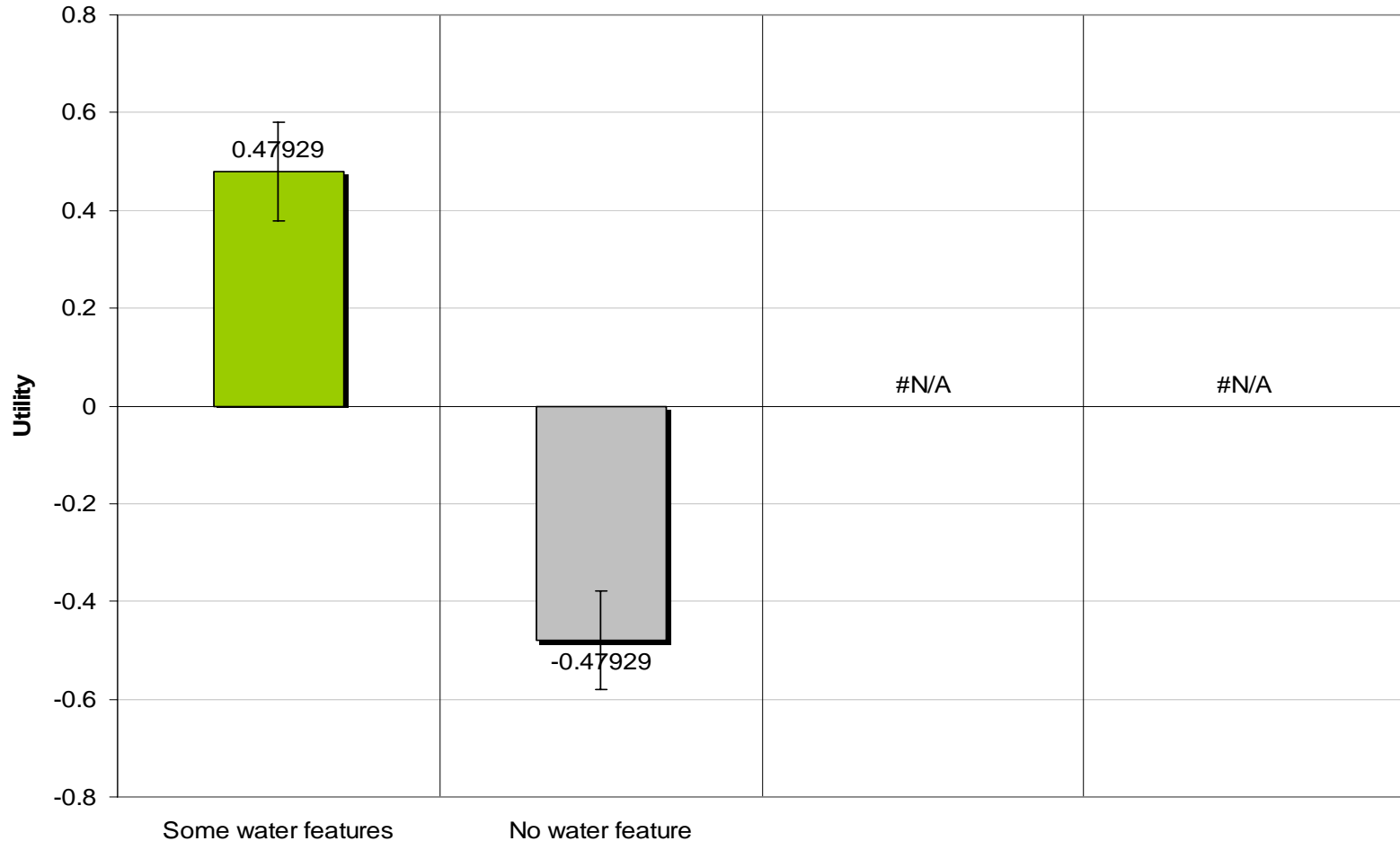
## Least significant shift within attribute



# What are participants' preferences for sub-levels of attributes?



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# Potential trade-off scenarios among natural and non-natural open space features

## Scenario 1

- ■ **Tree-lined paths**
- ■ **Trees/plants in the park**
- **Facilities** (café/toilets)

# Potential trade-off scenarios among natural and non-natural open space features

## Scenario 2

- ■ **Tree-lined paths**
- ■ **Trees/plants in the park**
- **Maintenance** (Well/Not well maintained)

# Potential trade-off scenarios among natural and non-natural open space features

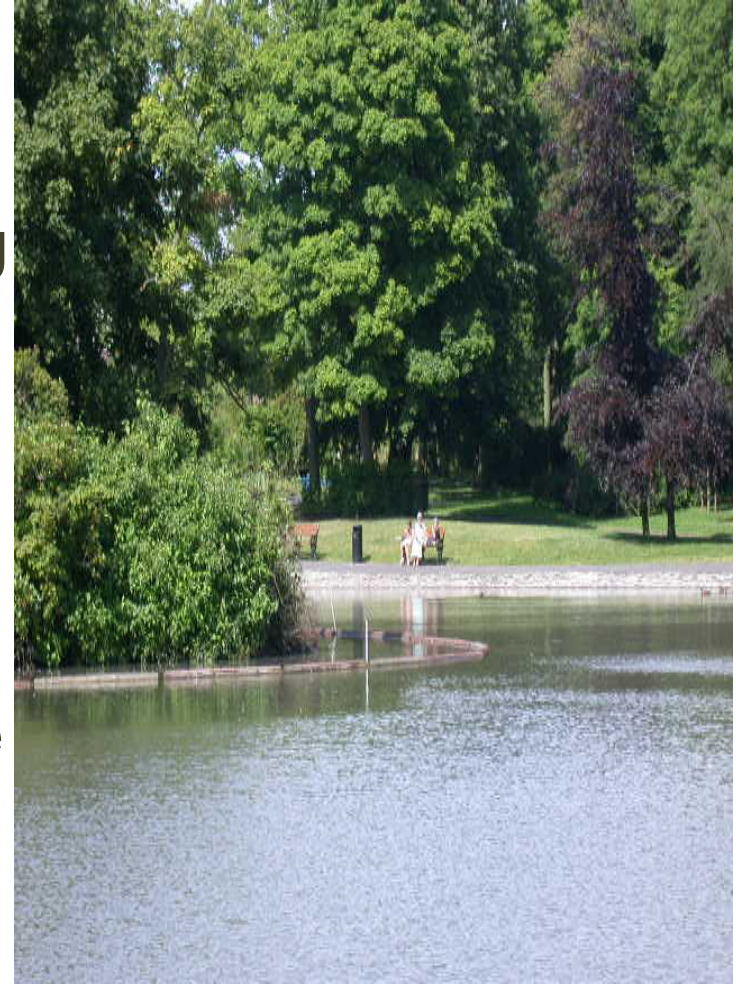
## Scenario 3

- **Tree-lined paths**
- **Trees/plants in the park**
- ▪ **Traffic** (light traffic)

# Implications

People living in a supportive outdoor environment tend to be more active, healthier and happier than those living in an unsupportive environment.

Improving the quality of the outdoor environment (making the choice of going outdoors easy and enjoyable) may be an effective way to encourage an active lifestyle and conducive to a better QoL.



The I'DGO website [www.idgo.ac.uk](http://www.idgo.ac.uk)



INCLUSIVE DESIGN FOR GETTING OUTDOORS

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