An empirical field study on sing-along behaviour in the North of England

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Introduction

- Strong historical tradition of singing along in England
- 20th century technologies & professionalisation of singer suppress public singing
- Singing along in leisure contexts is one of few public music-making opportunities today

Past Research

- Social bonding, expression of identity, 'neo-tribes' (Maffesoli, 1988; Finnegan, 1989; Bennett, 1997; Björnberg and Stockfelt, 1996; Malbon, 1999 Jackson, 2004)
- Positive effects of vocalising

  (Clift and Hancox, 2001; Freeman, 2001; Unwin, Kenny and Davis, 2002; Kreutz, et al, 2004; Clift, et al, 2007)
- 'Singable' melodies (Stefani, 1987)

Research Aims

- What motivates people to sing along to a song in a leisure context?
- Do songs have intrinsic features that make them ‘singalongable’?

Methods: Field Research

- Participant observer
- *Quantitative* & *qualitative* data
- 30 nights of research
- 5 venues: Manchester, Leeds, York & Kendal
- DJed & live music

Qualitative Results: Typology of sing-along behaviour

- Jaw-clencher
- Daydreamer
- Transient
- Conversational
- Flirtatious
- Stylised
  - I'm Always Here
- Reveller
  - Livin' on a Prayer
- Tribal
  - Chelsea Dagger

Still, disengaged

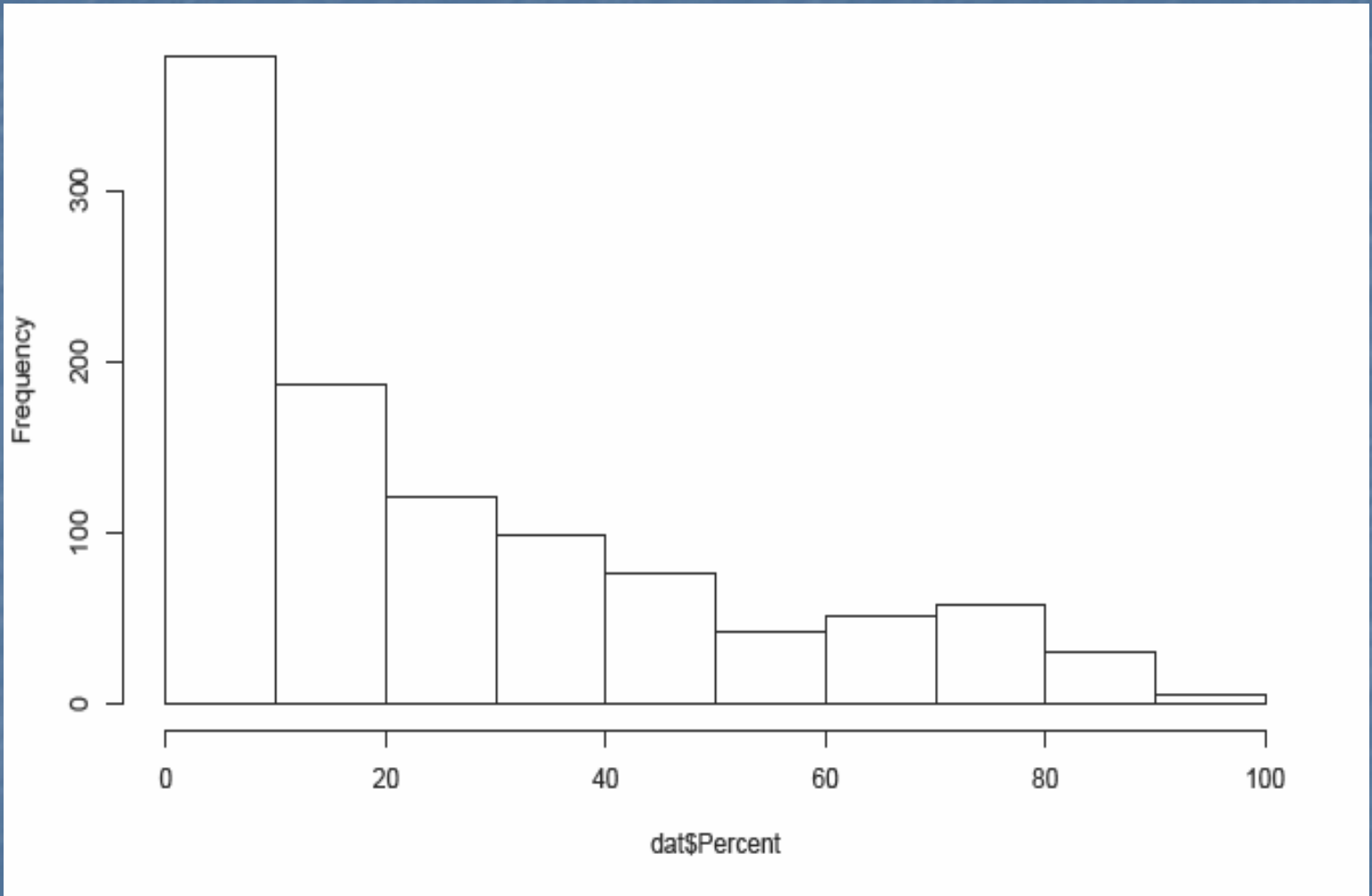
Dancing, enthusiastic

Quantitative Results: Intro to Data

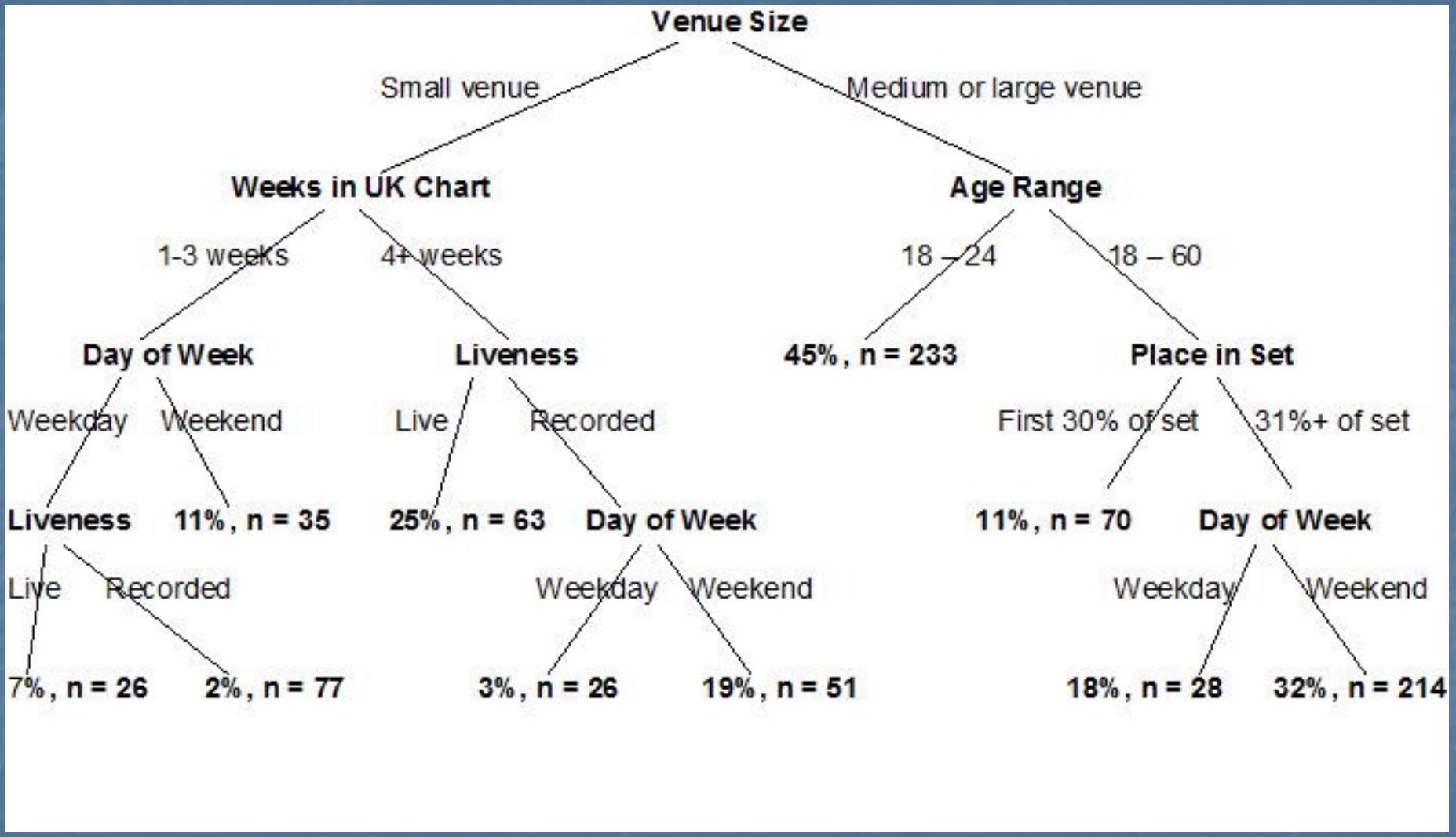
- Dependent variable: percentage of people singing along
- Two sets of explanatory (predictor) variables: contextual & musical
- 1050 'song events'
- 636 songs
- 332 song events used in musical analysis (121 songs)

- Contextual variables:
  - Place of song in set
  - Day of week
  - Venue size & function
  - Live vs recorded
  - Age range of audience
  - Date of release, UK chart position, weeks in UK chart
- Musical variables (34 total):
  - Vocal span & phrase lengths
  - Vocal hook
  - Vocal performance
  - Lyrics
  - Gender
  - …

Distribution of Percentages of People Singing Along Across 1050 Song Events



Tree Model: Contextual Variables



Conditional Inference Regression Tree model: explains ~40% of variance in the data

Random Forest

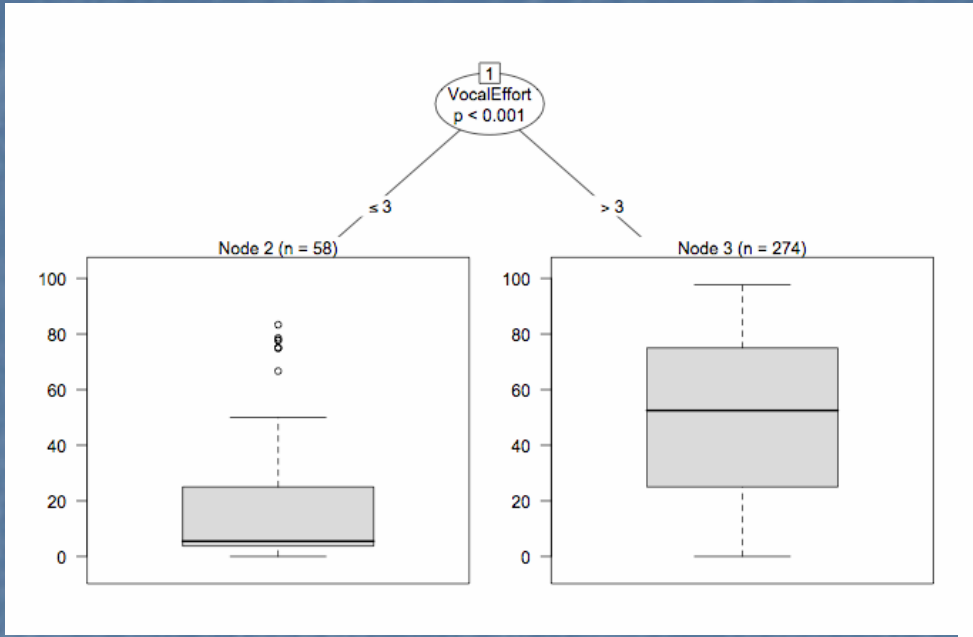
- Idea (Breiman, 2001):
  - Build ('grow') many tree models for same dataset each with a subset of the explanatory variables
  - Use majority vote of trees in forest to decide on predicted value for each case
  - Pro: Much better prediction accuracy than from single tree
  - Con: No simple rules or individual graphical model but information about the importance of each predictor for predicting the dependent variable.

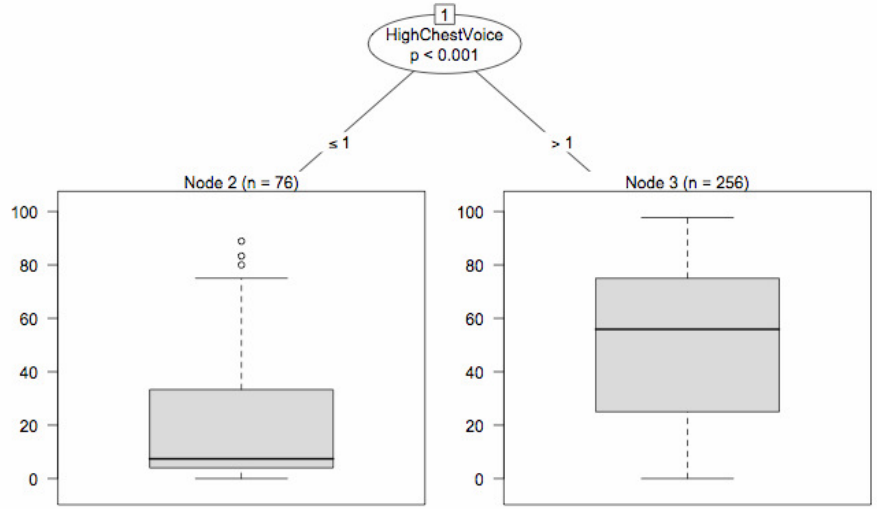
Random Forest Results

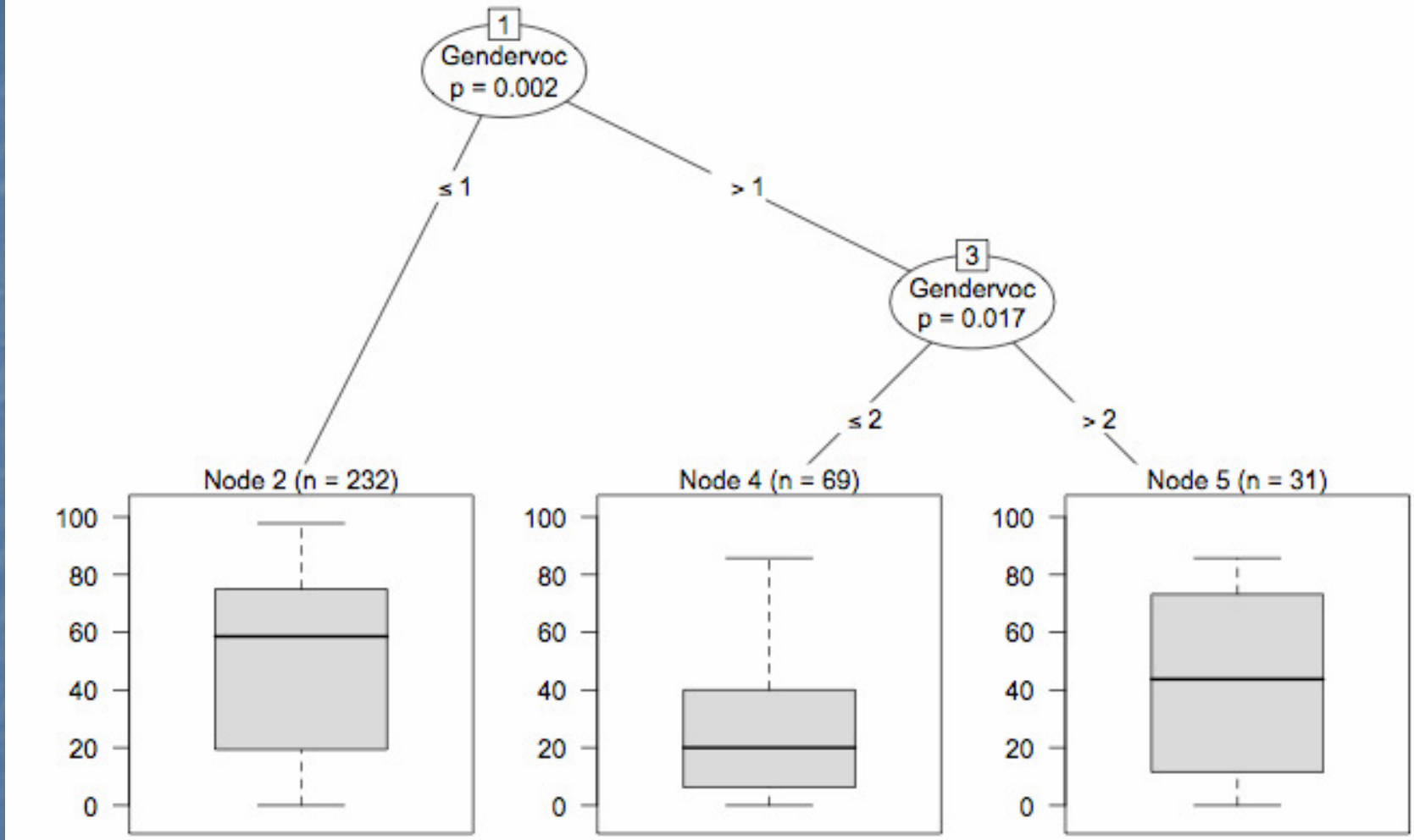
- Prediction accuracy: 65% of variance in data explained
- Most important variables (importance index):
  1. Combined model from contextual variables (81.4)
  2. Vocal effort (5.9)
  3. High chest voice (5.6)
  4. Gender of vocalist (4.5)
  5. Consonants (3.6)
  6. Vocal melisma and embellishment (2.0)
  - …

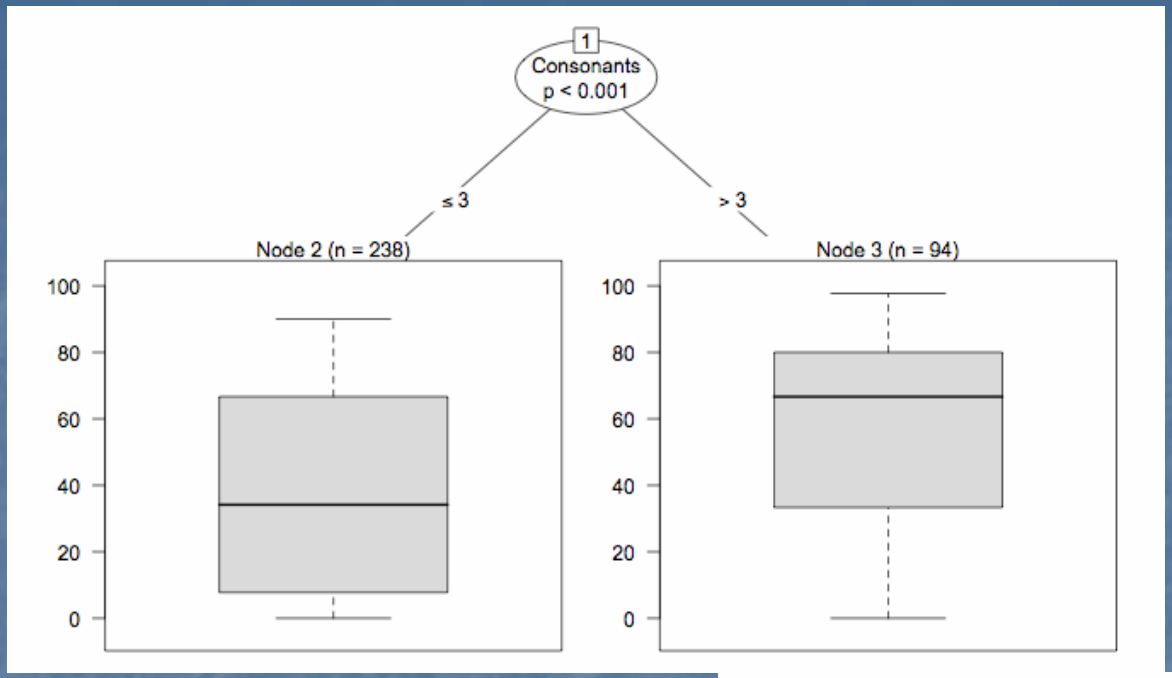
Trees of Most Important Musical Variables

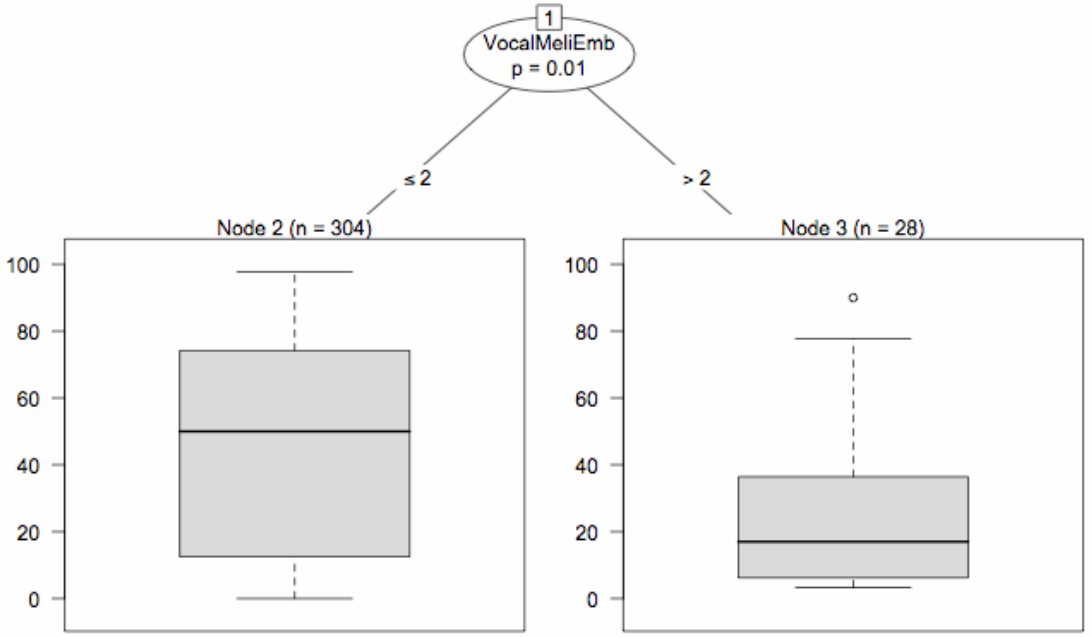
Relating most important predictors relating to sing-along percentage (by single trees)






1
Gendervoc
p = 0.002
≤ 1
> 1
3
Gendervoc
p = 0.017
≤ 2
> 2
Node 2 (n = 232)
Node 4 (n = 69)
Node 5 (n = 31)
100
80
60
40
20
0


1
Consonants
p < 0.001
≤ 3
> 3
Node 2 (n = 238)
Node 3 (n = 94)
100
80
60
40
20
0


1
VocalMeliEmb
p = 0.01
≤ 2
> 2
Node 2 (n = 304)
Node 3 (n = 28)
100
80
60
40
20
0

Results: Summary

- Contextual factors largely determine how many people sing along (explain ~40% of variance); musical factors not as influential (explain ~25% of variance).

- Singing along is positively effected by these contextual factors:
  - Larger venues
  - Younger people
  - Weekends
  - Songs played later in the set
  - Songs that spent 4 or more weeks in the charts

- Singing along is positively influenced by these musical factors:
  - High chest voice
  - More vocal effort
  - Clearer consonants
  - Less melisma and embellishment
  - Male singer

Discussion

- Contextual variables that encourage singing along can be connected with general revelry, which links to qualitative data.
- Familiarity & popularity potentially linked to singing along.
- No single 'sing-along' formula for music.
- Musical factors that do influence singing along are similar to qualities of anthems in popular music (Dockwray, 2005).
- 'Call to party' – 'tribal' bonding.
- Expresses excitement of revellers.
- Word clarity: ease of understanding & reproduction.
- Qualities that inspire confidence.
- Male vocals.

Conclusions

- Leisure contexts provide unique context for singing along to occur in public.
- Singing along is by influenced by context and connected to general revelry, where songs with anthemic qualities can invite a large proportion of the audience to join in.