Exploration of Judicial Facial Expression in Videos and Transcripts of Legal Proceedings

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by

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Contents

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Declaration

I hereby declare that this thesis contains no material which has been accepted for the award of any other degree or diploma in any university or equivalent institution, and that, to the best of my knowledge and belief, this thesis contains no material previously published or written by another person, except where due reference is made in the text of the thesis.

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Abstract

It is part of the human nature to express emotions as a way to react. However, in particular situation, for example the court, the Justices need to restrict their emotions display as a requirement to ensure the judgement is not biased towards a particular party. In this study, we use facial recognition software to objectively assess the facial expressions of six Justices in seven cases from the high court of Australia. From the obtained facial variables, we model the presence of a selected range of action units by a binomial model and the intensity of the action units by a two part model. From the modelling, we observe that the Justices are remain impartial during the court in general. When a more intense or frequent action unit is presented, it tends to be associated with a negative emotion like sad, fear and anger. Also we find that it would be hard for some Justices to remain a still face in the criminal cases where more extreme behaviour like drug issue and sexual assult are involved.

Chapter 1

Introduction

1.1 Background and motivation

People have attempted to predict the decisions of the Justices in the past century using judge characteristics i.e. Gender, political views, religious background. More recently, scholars(Shullman, 2004; Chen et al., 2018) have been using more information from media(i.e. AV recording, transcript, language used by the Justices) to predict the case outcome using the U.S. Supreme Court data. On-court information has also been used to study data from High Court of Australia. Tutton, Mack, and Roach Anleu (2018) has used an ethnographic approach to present a observational study of judicial behaviour based on watching the audio footage. Manually observing the AV recordings could lead to subjective evaluation of facial expression and this motivates us *to build upon Tutton, Mack, and Roach Anleu (2018)'s work to employ facial recognition technology to study the facial expression of the justices, which will provide a more objective result than Tutton, Mack, and Roach Anleu (2018).*

1.2 Literature review

The literature summary is divided into two parts: (1) current work in legal studies to understand the behaviour of the Justices and (2) existing facial recognition and emotion tagging technology.

1.2.1 Legal study from a behaviour perspective

There is a large law & economics and political science literature that attempts to predict how judges will vote in court cases. Much of this focuses on the characteristics of the judge i.e. gender, political views, religious background and characteristics of the parties in the case i.e. gender or race of the defendant in criminal cases (Nagel, 1962; Koppen and Kate, 1984; Aliotta, 1987-1988; Welch, Combs, and Gruhl, 1988; Steffensmeier and Britt, 2001; Kulik and Perry, 2003).

Moving from static information of the judge and parties involved, more studies start to incorporate the language used by the judge on the court to predict the decision of the Justices. Black et al. (2011) has study the use of pleasant and unpleasant language by the Justices and Shullman (2004) and Johnson et al. (2009) have studied the effect of frequency and content of Justices' questions. Epstein, Landes, and Posner (2010) use a regression analysis with the number of questions asked by the Justices used to infer the winning party in a case.

More recent legal study has focused on the usage of emotion and vocal characteristics of the Justices to predict the judge's votes. Although Chief Justices of Australia and Zealand (2017) present the following code of conduct:

> It is important for judges to maintain a standard of behaviour in court that is consistent with the status of judicial office and does not diminish the confidence of litigants in particular, and the public in general, in the ability, the integrity, the impartiality and the independence of the judge.

and this impartiality has been highlighted in judicial demeanour by Tutton, Mack, and Roach Anleu (2018) and Goffman (1956), Paul Ekman Ekman et al. (1991) suggests that from a behavioural perspective, some facial and vocal inflections are often unbeknown to the speakers themselves. Chen, Halberstam, and Alan (2016); Chen, Halberstam, Yu, et al. (2017) and Schubert et al. (1992) have studied the emotion of the Justices from vocal characteristics and suggest that these vocal characteristics, especially perceived masculinity is strongly correlated with the court outcomes. Dietrich, Enos, and Sen (2019) has used a multilevel logistic model with random effects to suggest that subconscious vocal inflections contain information that is not available from text.

Moreover, a more sizeable study by Chen et al. (2018) have incorporated both vocal and image information of the judge into a machine learning model to predict the judge votes and case outcome using the U.S. Supreme Court data from 1946-2014. He found that image features improved prediction of case outcomes from 64% to 69% and audio features improved prediction of case outcomes from 67% to 69%. This demonstrates the potential of incorporating facial information to understand the decision of the Justices.

The literature mentioned above is mostly conducted using the U.S. Supreme Court Database and less studies have been conducted using Australian High Court data. Tutton, Mack, and Roach Anleu (2018) has used an ethnographic approach to study the judicial demeanour in the High Court of Australia and it is the first of its kind to use transcript and AV recordings in Australian study. The study found that Justices present a detached facial demeanour during the court in most of the time while some human display of emotions i.e. laughter and humour have also been captured by the scholars. Tutton's work has confirmed the potential of using image information to understanding the Justices as in Chen's study, while the ethnographic approach could be biased and lead to subjective results when different people are observing the videos. Thus, building upon Tutton's study, my work fills the gap of producing objective result via utilising facial recognition technology.

1.2.2 Facial recognition

An anatomical study of the decomposition of facial muscles by (Ekman and Friesen, 1976) led to the development of Facial Action Code (FAC) (Ekman and riesen, 1978) and identification of the six universal emotions on human faces. This work has been further revised as (*Facial Action Coding System* n.d.) and has laid a solid foundation for analysing facial expression and developing facial recognition software for researchers (Kobayashi and Hara, 1992; Huang and Huang, 1997; Lien et al., 2000; Kapoor, Qi, and Picard, 2003; Tong, Liao, and Ji, 2007; Cohn et al., 2009; Lucey et al., 2010).

To be able to analysis the facial expression, proper facial recognition technique is needed to first extract faces from images. Facial recognition software i.e. DeepFace (Taigman et al., 2014) from Facebook and FaceNet (Schroff, Kalenichenko, and Philbin, 2015) from Google have also been developed for face detection. OpenFace (Baltrusaitis et al., 2018) is the first open-sourced face recognition software that provides facial expression detection, including facial landmarking, head pose estimation, eye gaze tracking and facial action unit detection. The OpenFace toolkit has been used in different area in research including depression classification (Yang et al., 2016; Nasir et al., 2016b), emotion study (Pan and Hamilton, 2018; Nasir et al., 2016a; Huber et al., 2018) and even sports analytics. (Kovalchik and Reid, 2018).

Chapter 2

Data Collection

2.1 Data Processing

The source data for this research project is the AV recordings publicly available from the High Court of Australia (Australia, 2019). Due to the requirement of resolution (more than 30px for face detection) of OpenFace, we picked up seven cases from 2018 that have less than seven judges as the sample videos for our dataset. A full list of video being processed can be found in Table **??** in the Appendix.

Multiple procedures need to be performed to obtain the numerical value of facial variables from the source videos. The entire workflow has been plotted in Figure 2.1. Youtube-dl (Hsuan, Amine, and Sergey, 2019) has been used to download videos from the High Court of Australia(Australia, 2019). Image frames are extracted from the videos for every minute via ffmpeg (Bellard, 2019), resulting in 1021 image frames (252 frames from `Nauru` videos and 769 frames from other five videos). Taipan (Kobakian and O'Hara-Wild, 2018) is then used to find the x-y coordinates of the location of the Justices in each image frame. ImageMagick (Cristy et al., 2019) is followed to crop the face of each Justice from each image frame that is taken from each video where three Justices present in `Nauru` videos and five Justices in other videos. The resulting 4601 cropped images are then sent to OpenFace (Baltrusaitis et al., 2018) to produce the variables for facial landmarking, head pose, eye gaze and facial action unit. This step is performed via the docker platform. The

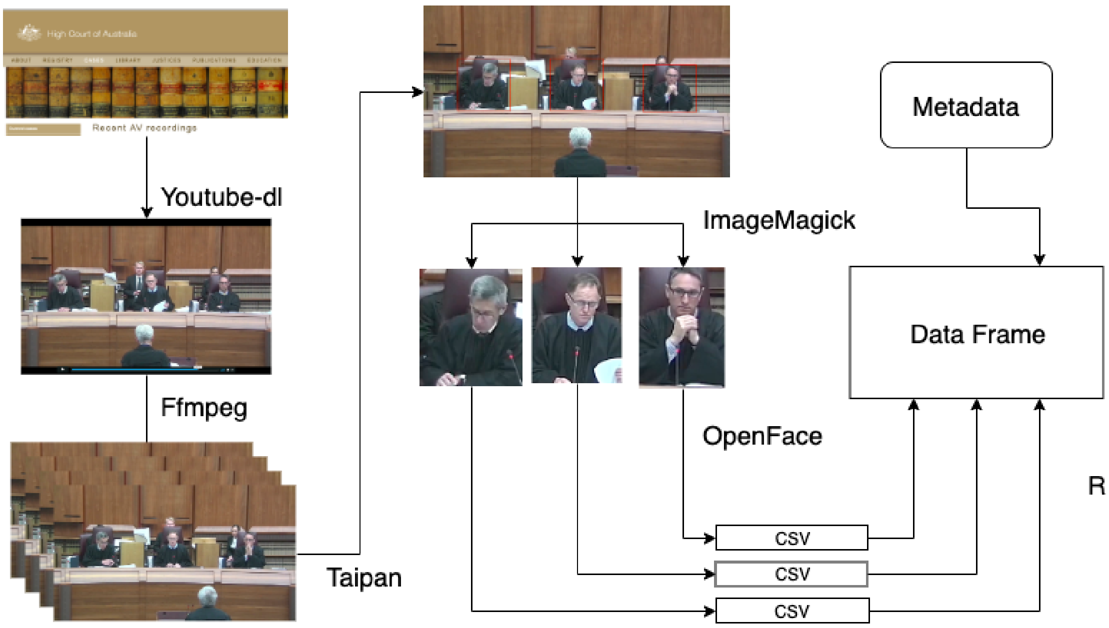


Figure 2.1: *workflow for video and image processing*

resulting outputs from OpenFace are individual comma-separated values (csv) files for each of the 4601 faces considered and processing is done in R to combine all the separate csv files into a final dataframe with appropriate index of `frame`, `judg` and `video`.

2.2 Variable description

OpenFace provides more than 711 variables measuring different aspects of a given face and a full description of the output variables can be found in Baltrusaitis et al. (2018). This outlines the difficulty of this project: no existing models will present accurate prediction and inference using 700+ variables - how can we incorporate these information to say about the facial expressions of the Justices during the hearings?

I conduct some exploratory data analysis on one video: `Nauru_a` and find the 700+ variables can be classified as follows with some insights

- **Confidence**: How confidence OpenFace is with the detection. Confidence is related to the angle that the Justice's face present in the images.

- **Gaze**: Gaze tracking: the vector from the pupil to corneal reflection. The dataset contains information on the gaze for both eyes while there is no distinct difference between the eyes. Also I was trying to make animation to track the change of the gaze for judges but no good luck.

- **Pose**: the location of the head with respect to camera. Pose-related variables don't provide much useful information apart from gaze-related variables.
- **Landmarking**: landmarking variables for face and eyes. Landmarking variables allows me to plot the face of the judge in a particular frame. More work could be done to explore the usefulness of landmarking variables.
- **Action Unit**: Action units are used to describe facial expressions. The action unit has intensity measures ending with `_c` and presence measures ending with `_r`.

2.3 Data format

In this project, we will make use of the action unit variables along with all the added indexes to analyse the face of the judge. In the wide format, apart from the first four index columns, each action unit has two columns with one for binary presence value and another for numeric intensity value. The Table 2.1 presents the first five rows of the dataset with columns for the first action unit only.

Table 2.1: *data in wide format*

judge	video	frame	AU01-r	AU02-r	AU04-r	AU05-r	AU06-r	AU07-r	AU09-r	AU10-
Bell	McKell	1	0	0	0.69	0.63	0	1.5	0	0
Bell	McKell	2	0	0	0.69	0.63	0	1.5	0	0

The data can also be expressed in the long format with action unit being another index and presence and intensity being two columns. The Table 2.2 presents the first five rows of the data in the long format.

Table 2.2: *data in long format*

judge	video	frame	speaker	AU	presence	intensity
Edelman	McKell	1	Appellent	AU01	0	0.05
Edelman	McKell	1	Appellent	AU02	1	0.00
Edelman	McKell	1	Appellent	AU04	0	0.01
Edelman	McKell	1	Appellent	AU05	0	0.00
Edelman	McKell	1	Appellent	AU06	0	0.00
Edelman	McKell	1	Appellent	AU07	0	0.00
Edelman	McKell	1	Appellent	AU09	0	0.26
Edelman	McKell	1	Appellent	AU10	0	0.00
Edelman	McKell	1	Appellent	AU12	0	0.00
Edelman	McKell	1	Appellent	AU14	1	1.23
Edelman	McKell	1	Appellent	AU15	0	0.46
Edelman	McKell	1	Appellent	AU17	0	0.66
Edelman	McKell	1	Appellent	AU20	1	1.44
Edelman	McKell	1	Appellent	AU23	0	0.64
Edelman	McKell	1	Appellent	AU25	0	0.00
Edelman	McKell	1	Appellent	AU26	0	0.00
Edelman	McKell	1	Appellent	AU28	NA	NA
Edelman	McKell	1	Appellent	AU45	0	0.25
Edelman	McKell	2	Appellent	AU01	1	0.05
Edelman	McKell	2	Appellent	AU02	1	0.00
Edelman	McKell	2	Appellent	AU04	1	0.01
Edelman	McKell	2	Appellent	AU05	0	0.00
Edelman	McKell	2	Appellent	AU06	0	0.00
Edelman	McKell	2	Appellent	AU07	0	0.00
Edelman	McKell	2	Appellent	AU09	0	0.26
Edelman	McKell	2	Appellent	AU10	0	0.00
Edelman	McKell	2	Appellent	AU12	0	0.00
Edelman	McKell	2	Appellent	AU14	1	1.23
Edelman	McKell	2	Appellent	AU15	1	0.46
Edelman	McKell	2	Appellent	AU17	1	0.66
Edelman	McKell	2	Appellent	AU20	1	1.44
Edelman	McKell	2	Appellent	AU23	0	0.64
Edelman	McKell	2	Appellent	AU25	0	0.00
Edelman	McKell	2	Appellent	AU26	0	0.00
Edelman	McKell	2	Appellent	AU28	NA	NA
Edelman	McKell	2	Appellent	AU45	0	0.25

2.4 Missing value imputation

The missingness in the dataset could be due to the fact that a judge is reading the materials on the desk so the face is not captured for a particular frame or simply because some faces are not detectable for the given resolution of the video stream. However, since that data is in time series structure, simply drop the missing observation will cause the time interval to be irregular and complicate further analysis.

There are two different sets of variables that need imputation. `Presence` is a binary variable that takes value of one if an action unit is present in a particular frame for a judge in a video and `Intensity` measures how strong that action unit is. Linear interpolation from `forecast` package is suitable to impute `Intensity` and `Presence` is imputed through sampling from binomial distribution. The imputed action unit data is stored as `au_imputed` under the `raw_data` folder.

2.5 Data cleaning

There is a data quality issue coming from the data I get from OpenFace. For some observations, the intensity of the action unit is high while the present variable has a zero value. According to Baltrusaitis et al. (2018), intensity is trained by OpenFace seperately from presence, thus some inconsistency is expected. However, one would expect presence and intensity score should not have too much discrepency. Therefore, I adjust for the presence value if the intensity is higher than one. One is being chosen as the threshold value because in Ekman's definition of the intensity of the action unit, a score of one means the action unit is at least slightly present in the judge's face.

Chapter 3

Method

3.1 Notation

Let **X** be a matrix of predictors, and **Y** variable in our case is bivariate matrix of response variables, including a binary indicator of presence/absence and a numeric value measuring intensity, of facial action unit, where

- X_1 indicates `judge` with six categories $i = 1, 2, \cdots, 6$
- X_2 indicates `video` for each of the seven cases, $j = 1, 2, \cdots, 7$
- X_3 indicates action unit containing 18 possible facial expression.

- X_4 indicates `speaker`, either the appellant or respondent, $l = 1, 2$
- X_5 indicates `frame` corresponding to time, $t = 1, 2, \cdots, T_j$

Note that t could be considered a time variable, but because images are taken at 1 minute intervals, temporal dependence is unlikely to exist. Rather this should be considered an independent observation.

A full, main effects model for the data might be expressed as:

$$Y_{ijklt} = \mu + \alpha_i + \beta_j + \gamma_k + \delta_l + \varepsilon_{ijklt}$$

Also, let P_{jitkl} represent the response variable presence, and I_{jitkl} represent the response variable intensity. This notation will be helpful for defining the plots and models explained in this section.

3.2 Modelling Presence

3.2.1 Model structure

- why probit or logit?

3.2.2 Model 1: Action unit

A binomial model with logistic link is first used to model the presence score.[https://stats.stackexchange.com/questions/20523/difference-between-logit-and-probit-models#30909] Interaction of judge and action unit is included to capture the judge-wise differences for different action units. The is necessary since from the exploratory data analysis, different judges have different average presence score for different action units. The model can be written down as Equation 3.1.

$$P_{ik} = \frac{e^{\eta_{ik}}}{1 + e^{\eta_{ik}}} \tag{3.1}$$

$$\eta_{ik} = \mu + \alpha_i + \gamma_k + (\alpha\gamma)_{ik} \tag{3.2}$$

3.2.3 Model 2: Video

Build upon the first model, the second model adds the video related main effect and interactions, as shown in Equation 3.3. The interactions allow both judge and action unit variables to differ in different videos, which is useful to answer the research questions *whether the judges are behaving same or different across videos.*

$$P_{ijk} = \frac{e^{\eta_{ijk}}}{1 + e^{\eta_{ijk}}} \tag{3.3}$$

$$\eta_{ijk} = \mu + \alpha_i + \beta_j + \gamma_k + (\alpha\beta)_{ij} + (\alpha\gamma)_{ik} + (\beta\gamma)_{jk} \tag{3.4}$$

3.2.4 Model 3: Speaker

Build upon the second model, the third model is aimed to capture the speaker-wise effect, that is, *do the expressions of the judges change when different parties are speaking*. The model formula is shown in Equation 3.5.

$$P_{ijkl} = \frac{e^{\eta_{ijkl}}}{1 + e^{\eta_{ijkl}}} \tag{3.5}$$

$$\eta_{ijkl} = \mu + \alpha_i + \beta_j + \gamma_k + \delta_l + (\alpha\beta)_{ij} + (\alpha\gamma)_{ik} + (\beta\gamma)_{jk} + (\alpha\delta)_{il} \tag{3.6}$$

Interactions are still included in this model, but attention need to be paid to ensure the interactions are relevant. Theoretically, we could include speaker with all of the three existing variables (judge, action unit and video), but this would cause the model to run out of degree of freedom given the number of observations we have. Therefore, we only include judge-speaker interaction because it is directly related to the research question of this model.

3.2.5 Diagnostics

The analysis of variance (ANOVA) (Faraway, 2016; Gelman and Hill, 2006) is a statistical method that compares the mean of each treatment level for a variable. Three types of ANOVA test are designed for different purposes. Type I takes a sequential approach to test the significance of variables, thus the order of the variable in the model will potentially affect the ANOVA result. Type II ANOVA tests the main effect of a covariate after controlling for other covariates but not interactions. This approach is recommended if the interactions are not significant. Type III ANOVA tests the main effect of a covariate after controlling for other covariates *and* the interactions. It is better than Type II ANOVA if the interactions are significant.

Different packages in R conduct ANOVA test: `anova()` and `drop()` from base R provides type I and type II tests. `Anova()` from `car` package allows for both type II and III through specifying a `type` argument. `aov()` from `stats` package allows for ANOVA test only for balanced dataset.

The ANOVA test provide variable significance, which allows us to understand if at least one treatment in the group is significantly different from others. This is useful before proceeds to the multiple comparison procedure, where we are able to talk which treatment(s) are different from others.

3.3 Modelling Intensity

The histogram of the intensity is plotted in Figure 4.3. The distribution has a high proportion of zeros with highly skewed continuous position value. This type of data is the so-called semi-continuous data (Neelon and O'Malley, 2019; Liu et al., 2010). The semi-continous data is modelled in the econometrics literature by the two part model(Cragg, 1971; Manning et al., 1981). In the two part model, the data is viewed to be generated via a sequential modelling technique that is a mixed distribution of

- a binary (logistic or probit) model of if Y = 0 or not, and
- a specific model for the conditional distribution of $y \mid y > 0$.

The choice of model between two part model and sample selection model is always discussed in the literature. Monte-Carlo simulation studies by different reseraches (Leung and Yu, 1996; Duan et al., 1984; Manning, Duan, and Rogers, 1987) show different results on whether these different classes of model are answering the same or distinct inferential questions. The reason for us to choose two part model rather than sample selction model is because the problem of not being able to observe Y for those observations with selection variable $z = 0$ doesnt exist in our data. In another word, if an action unit is not present for an observation, it doesnt make sense to talk about "intensity score if the action unit is present". Tobit model is not appropriate because the data can't be viewed as normally distributed with negative value censored as zero (meaningless to say negative intensity value). Zero inflated model is not used because it considers two source of zeros in the data while there is no zeros being generated from the second model (only one source of zeros).

The functional form of the conditional distribution need to be able to capture the highly skewed nature of the non-zero observations. A convention approach is to assume the conditional distribution is a lognormal distribution (Manning et al., 1981; Diehr et al., 1999). More recent literature proposes the use of gamma or generalised gamma regression model for the conditional distribution (Liu et al., 2010). A log transformation on the non-zero data in Figure 4.3 suggests the data is left skewed after the transformation, thus a lognormal distribution may not be able to adequately capture the data. Gamma regression model is chosen to because it could also capture the right skewedness and it is easier to implement via the glm() function than the generalised gamma distribution. The log link function is used because the canonical inverse link for gamma distribution will cause some estimated marginal mean to be extremely high and thus meaningless for intensity score.

The two part model including video and relevant interactions is written in Equation 3.7. The model includes speaker is shown in Equation 3.11.

$$\mu^1_{ijkl} = \frac{e^{\eta_{ijkl}}}{1+e^{\eta_{ijkl}}} \tag{3.7}$$

$$\eta ijk = \mu + \alpha_i + \beta_j + \gamma_k + (\alpha\beta)_{ij} + (\alpha\gamma)_{ik} + (\beta\gamma)_{jk} \tag{3.8}$$

$$\mu^2_{ijk} = \frac{1}{I_{ijk}} \tag{3.9}$$

$$E(I_{ijk} \mid I_{ijk} > 0) = \mu + \alpha_i + \beta_j + \gamma_k + (\alpha\beta)_{ij} + (\alpha\gamma)_{ik} + (\beta\gamma)_{jk} \tag{3.10}$$

$$\mu^1_{ijkl} = \frac{e^{\eta_{ijkl}}}{1+e^{\eta_{ijkl}}} \tag{3.11}$$

$$\eta ijkl = \mu + \alpha_i + \beta_j + \gamma_k + \delta_l + (\alpha\beta)_{ij} + (\alpha\gamma)_{ik} + (\beta\gamma)_{jk} + (\alpha\delta)_{il} \tag{3.12}$$

$$\mu^2_{ijkl} = \frac{1}{I_{ijkl}} \tag{3.13}$$

$$E(I_{ijkl} \mid I_{ijkl} > 0) = \mu + \alpha_i + \beta_j + \gamma_k + \delta_l + (\alpha\beta)_{ij} + (\alpha\gamma)_{ik} + (\beta\gamma)_{jk} + (\alpha\delta)_{il} \tag{3.14}$$

In the above two models, $\mu^1_.$ indicates the mean of the first binomial model and $\mu^2_.$ is the mean of the second gamma model.

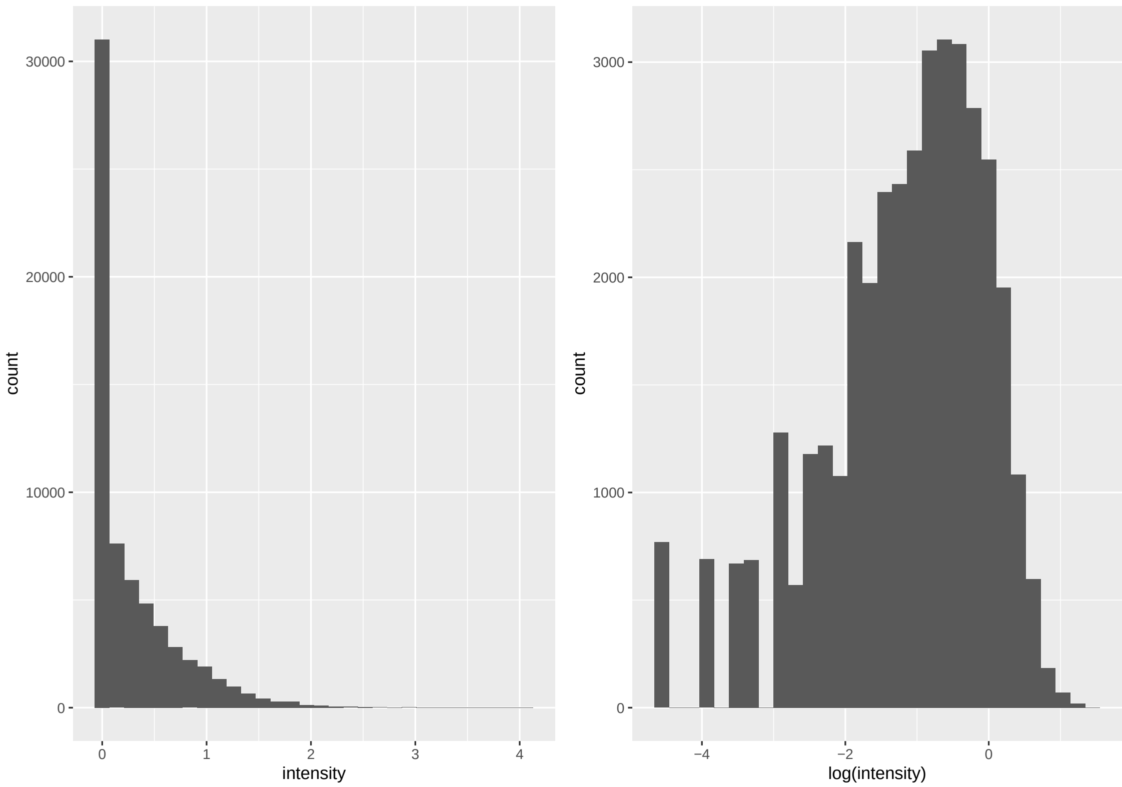


Figure 3.1: *this is the histogram*

3.4 Post-Model Analysis

The estimates of variables from the model summary are not particularly useful in our case. This is because firstly, the estimates of the coefficient are not interpretable in the logistic regression. Secondly, we are interested in whether the mean for each treatment is same or different. Thus estimated marginal mean and multiple comparison is necessary to compute for post-model analysis.

3.4.1 Estimated Marginal Mean (EMM)

The estimated marginal mean (Gelman and Hill, 2006) is the fitted value from a model over a pre-defined reference grid. In our data, the unique combination of judge, video and action unit forms the reference grid. The estimated marginal mean is computed on each grid point as a linear fit of the model, along with standard error and confidence interval. The probability from estimated marginal mean have a nice interpretation as the estimated probability of presence score for a particular combination of action unit, judge and video.

This output allows us to compare how the estimated presence probabilities of each judge, video and action unit combination are different or similar from each other.

3.4.2 Multiple Comparisons

Multiple comparison procedures consider the problem of simultaneous inference. A 5% significance level indicates if we conduct 100 tests simultaneously, about 5 tests will show significance out of randomness. This is a problem we need to pay attention to when comparing the estimated presence probability or we may wrongly conclude judges has a different facial expression than others but they are actually not.

When multiple estimated mean are compared at the same time, the confidence level (or α in p-value) need to be adjusted to control the family-wise error rate to be less than α. Bonferroni adjustment makes the adjustment to reject a hypothesis test at α/N level so that the type I error of whole family of the simultaneous tests (Family-wise Error Rate (FWER)) is control be less than α. This can be proved using Boole's inequality if we denote the number of true H_0 as N_0.

$$\Pr\left[\bigcup \Pr(P_i \leq \frac{\alpha}{N})\right] \leq \sum \Pr\left(p_i \leq \frac{\alpha}{N}\right) = N_0 \frac{\alpha}{N} \leq \alpha$$

Testing significance based on p-value has been long criticised for its interpretation. Researchers can erroneously conclude significance because of p-value being less than 0.05 without discussing the false positive/negative proportion. On the other hand, confidence interval provides a confidence range for the estimates to highlight the uncertainty around estimation. Thus I will compute the confidence interval to compare whether the estimated mean for a particular judge-AU group is same or different across videos based on if the intervals overlap with each other.

Chapter 4

Results

4.1 Exploratory Data Analysis

4.1.1 Action unit: Presence

Mean presence score and most common action units

The average presence (P_{ik}) of each action unit is first computed for each judge as

$$P_{ik} = \frac{\sum_{jt} X_{ijtk}}{\sum_{j=1}^{J} T_j}$$

This is then plotted in Figure 4.1 to give an overview of the presence score of all the action units across all the judges. The order of action unit on the y axis is ranked by the average presence of all the judges. The five most frequent action units are highlighted in blue for each judge and summarised in Table 4.1

Table 4.1: *The five most commonly presented action units for each judge.*

index	Bell	Edelman	Gageler	Keane	Kiefel	Nettle
1	AU15	AU02	AU02	AU20	AU02	AU02
2	AU09	AU20	AU05	AU15	AU25	AU15
3	AU25	AU01	AU15	AU02	AU45	AU20
4	AU02	AU15	AU14	AU14	AU20	AU01
5	AU01	AU23	AU20	AU07	AU14	AU07

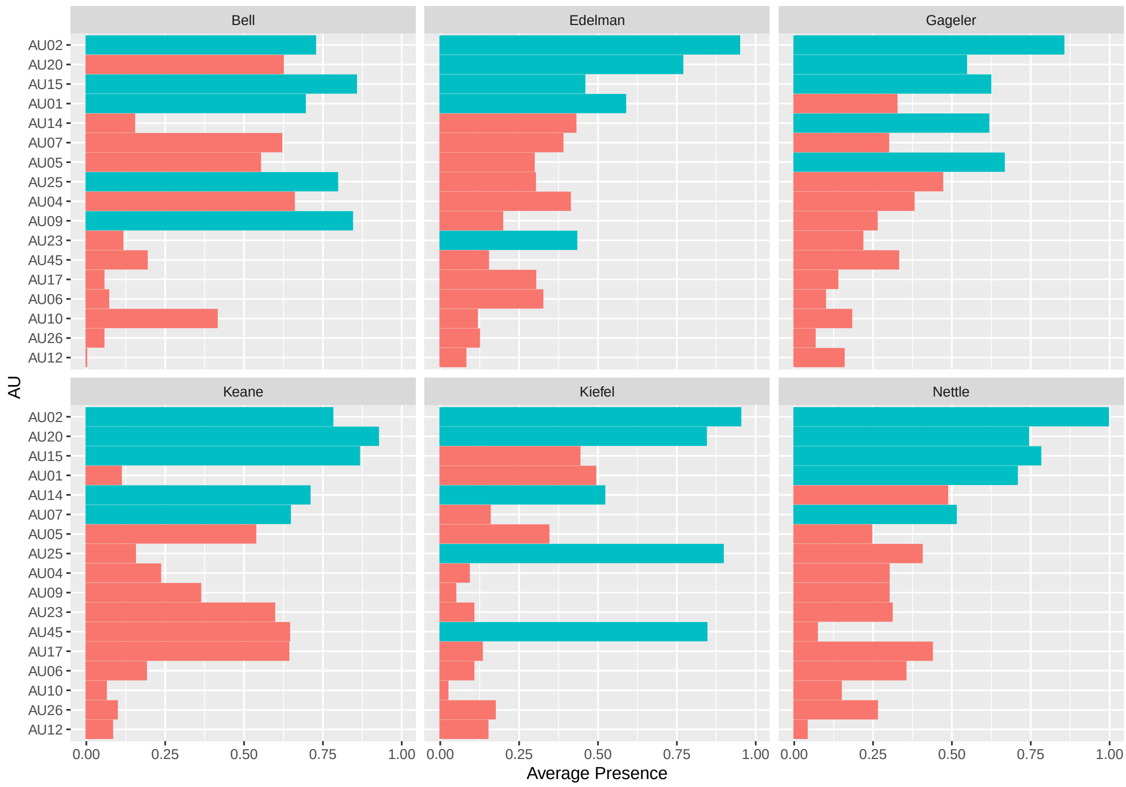


Figure 4.1: *The average presence score of each action unit for each judge, aggregating on video and time.*

It can be seen that some of the action units are common across almost all the judges, these includes

- AU02 (outer eyebrow raise),
- AU20 (lip stretcher),
- AU15 (Lip Corner Depressor)
- AU14 (Dimpler)

According to Ekman, Friesen, and Hager (2002), AU02 makes a contribution to surprise, which may be a positive attitude showing that judges are interested in a particular moment. AU14 indicates boredom and AU15 shows confusion. Based on the most common five action units, the emotions judges displayed in the courtroom can be summarised into three categories, described in Table 4.2, along with the featured action units.

Table 4.2: *Summarised emotions and featured action units*

emotion	Featured Action Unit
Surprise	AU01, AU02, AU05
Boredom	AU14, AU23
Confusion	AU07, AU15, AU23

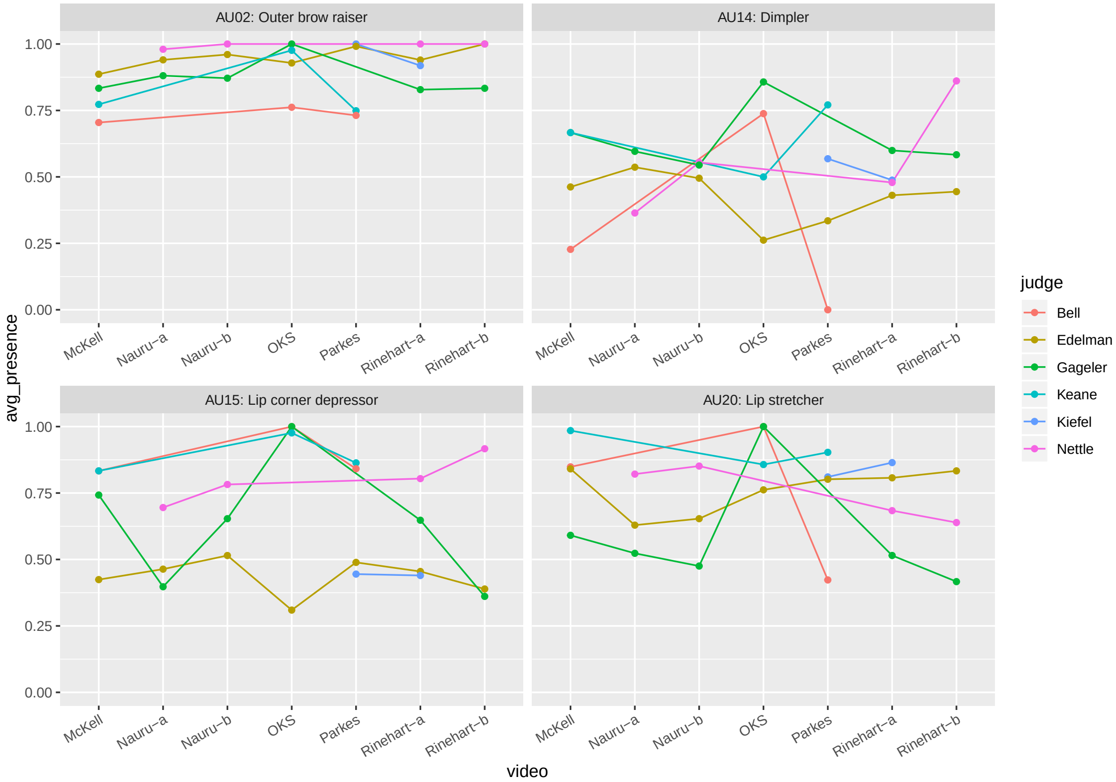


Figure 4.2: *Average presence of the four most common action units for each judge by video*

Presence by videos

We are also interested in the main presence score of the judges by video (P_{ijk}). This is computed as

$$P_{ijk} = \frac{\sum_t X_{ijtk}}{T_j}$$

for the four most common action units: AU02, AU14, AU15, AU20 and plotted in Figure 4.2. From this plot, we can observe that judge Gageler, who is coloured as green, has a much higher proportion of expression in case OKS, especially in action unit 14, 15 and 20. judge Bell, who is coloured red also has large fluctuation in case Parkes for action unit 14 and 20. In the next section, I will model the presence score by incorporating the video information to see if the model tells us the same.

4.1.2 Action unit: Intensity

General Intensity plot

In Ekman's 20002 FACS manual, the intensity of an action unit is defined based on five classes: Trace: 0-1, Slight: 1-2, Marked or pronounced: 2-3, Severe or extreme: 3-4 and Maximum: 4-5.

The boxplot of the intensity for all the judges across all the videos is presented in Figure 4.3. Each bar-and-whisker represents the intensity (I_{ijtk}) of all the action units aggregated on time for a particular judge i in a specific case j. For example, the first bar-and-whisker in case Nauru_a is created using all the 17 action units of Edelman through out the elapsed time in Nauru_a case.

From the plot, we can see that most of the action units have low intensity score and this is expected because usually judges are expected to behave neutral in the court room. Thus a square root transformation is taken on the y axis for better visualisation effect. We can find that Judge Nettle seems to have higher average in all the four cases he appears: Nauru_a&b, Rinehart_a &b.

Mean intensity

Mean intensity score (I_{ik}) of each action unit for each of the judge is computed as

$$I_{ik} = \frac{\sum_{jt} X_{ijtk}}{\sum_{j=1}^{J} T_j}$$

and plotted in Figure 4.4. The five most intense action units for each judge are presented in Table 4.3. We can find that the common high intense action units includes

- AU20 (Lip Stretcher)
- AU07 (Lid Tightener)
- AU04 (Brow Lower)

AU04 also belongs to the confusion category as AU07. This could help to understand that judges are more likely to express a stronger confusing expression than other emotions.

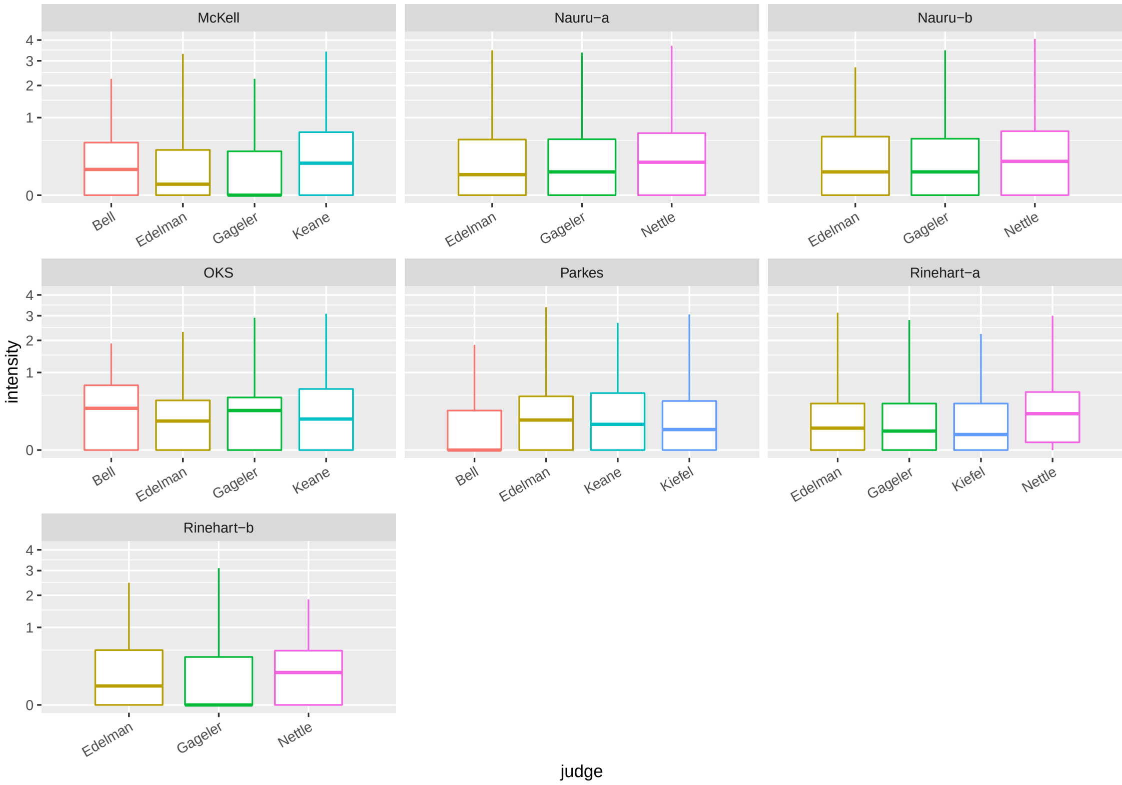


Figure 4.3: *General intensity score by judge and video*

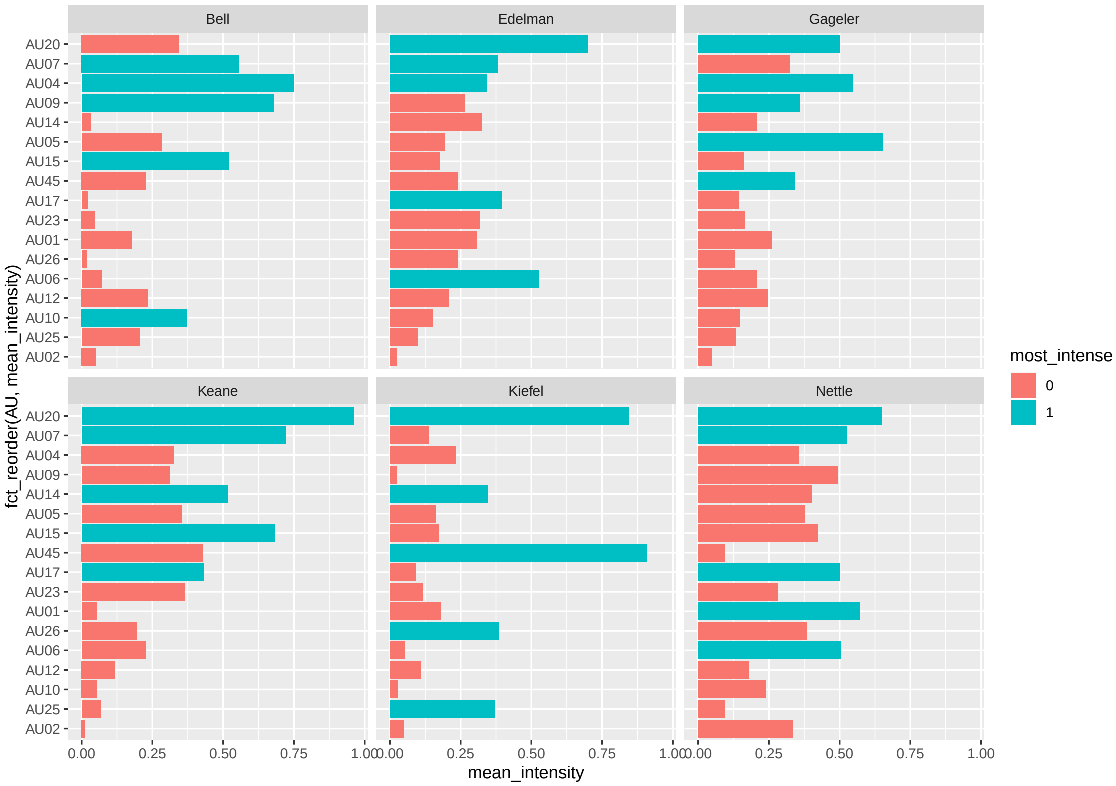


Figure 4.4: *Mean intensity score for each judge and action unit aggregating on videos.*

Table 4.3: *The five most intense action unit for each judge.*

index	Bell	Edelman	Gageler	Keane	Kiefel	Nettle
1	AU04	AU20	AU05	AU20	AU45	AU20
2	AU09	AU06	AU04	AU07	AU20	AU01
3	AU07	AU17	AU20	AU15	AU26	AU07
4	AU15	AU07	AU09	AU14	AU25	AU06
5	AU10	AU04	AU45	AU17	AU14	AU17

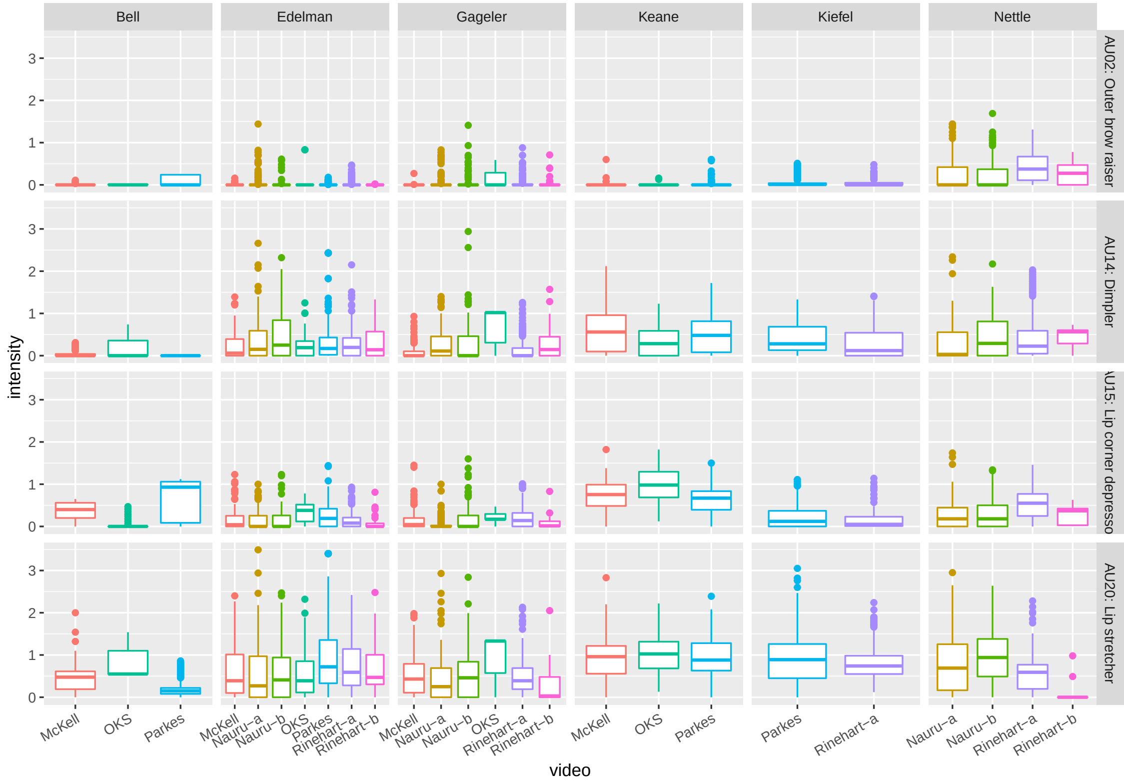


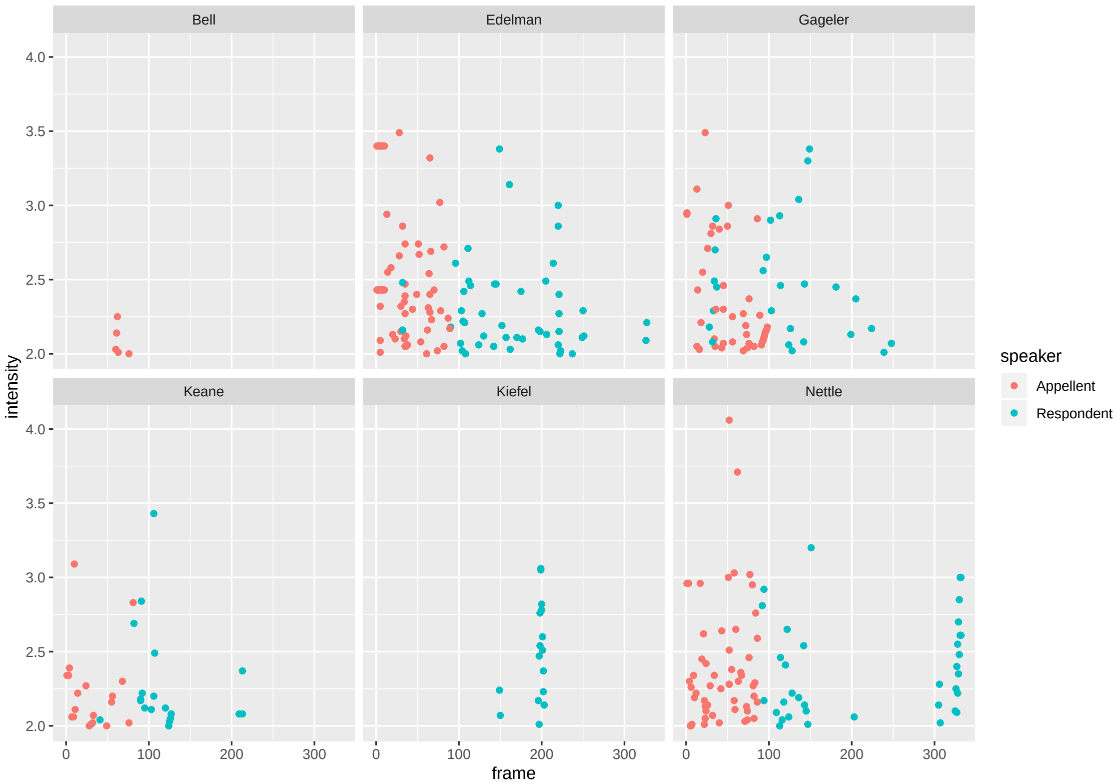
Figure 4.5: *Intensity score of the most frequent action units, seperating by judge and video ID.*

Intensity plot for the most frequent action units

Apart from visualising the general intensity score for all the action units, I'm also interested in the intensity score of the most frequent action units. Figure 4.5 presents this. The statistics being plotted is I_{ijtk} with k including AU02, AU14, AU15 and AU20 as the most common four action units. From this plot, we can learn that AU02, although being commonly detected for all the judges, has low intensity score.

High intensity points

We filter out the points have intensity greater than 2 (at least "slight" as per Ekman) in the previous plot and plot it against time and color by the speaker. It tells us that Edelman, Gageler and Nettle are the judges have stronger emotion that can be detected (since they have more points with intensity greater than 2). Different judges also have different time where they display stronger emotions. For example, Justice Nettle are more likely to have stronger emotion throughout the time when the appellant is speaking but only at the beginning and ending period when the respondent is speaking.



4.2 Choose of action unit to include

The number of action unit to include in the model is a matter of choice. Including too many action units will cause the model to run out of degree of freedom while too few action units will cause the model not being able to explain an adequate amount of data. Choosing the number of action unit to include ensures the model is parsimonious, that is, a model with the smallest number of variables but with greatest explanatory power. Random effect may be able to deal with large number of factor levels of a variable, but in our context, understanding the presence or intensity score of an action unit that barely present is not particularly of our interest. We are interested in the action units with a certain mean presence (and intensity) for most of the judges.

I compute the number of action unit for different combination of mean presence level and number of judges and plot the result as a heatmap in Figure 4.6 [this sentence need to be re-worded]. The bottom left cell with cutpoint of 0.05 and number of judge as 1 can be interepreted as follows. There are 17 action units with at least one judge having mean presence score greater than 0.05.

The choose of number of action unit is similar to choosing the number of principle component based on the proportion of explained varariance in the screen plot from principle component analysis. We can see from the plot that when changing the cutpoint from 0.35 to 0.3 and number of judges from 6 to 5, we have a great increase in the number of action unit. Thus, I choose the cutpoint at 0.3 and number of judge at 5. This allows my model to include seven action units. The included action units are shown in Table 4.4 along with their meanings and their average presence score are plotted in Figure 4.7 where the color indicates whether the average percentage is above the 0.3 threshold.

I perform the procedure on the intensity data with the heatmap can be foudn in 4.8. The choose of intensity is similar to the one for presence data but we also want there to be a certain number of action unit to overlap with the ones for presence [maybe reword this sentense as well?]. Therefore, we choose the cutpoitn at 0.2 and number of judges at 5, which gives six action units to include. The information and average intensity score can be foudn in Table 4.5 and Figure 4.9 respectively.

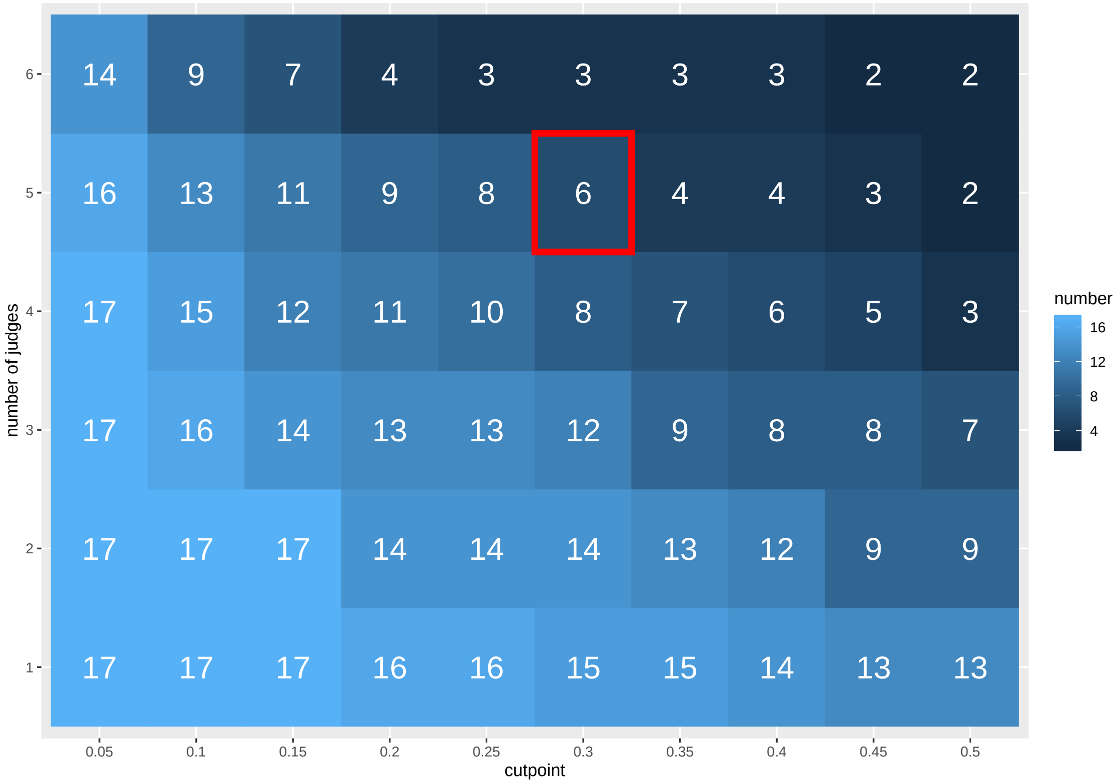


Figure 4.6: *heatmap for presence*

Table 4.4: *The meaning of action units selected for presence modelling*

AU_meaning
AU01: Inner brow raiser
AU02: Outer brow raiser
AU05: Upper lid raiser
AU07: Lid tightener
AU14: Dimpler
AU15: Lip corner depressor
AU20: Lip stretcher
AU25: Lips part

Table 4.5: *The meaning of action units selected for intensity modelling*

AU_meaning
AU01: Inner brow raiser
AU04: Brow lowerer
AU05: Upper lid raiser
AU07: Lid tightener
AU09: Nose wrinkler
AU14: Dimpler
AU15: Lip corner depressor
AU20: Lip stretcher
AU45: Blink

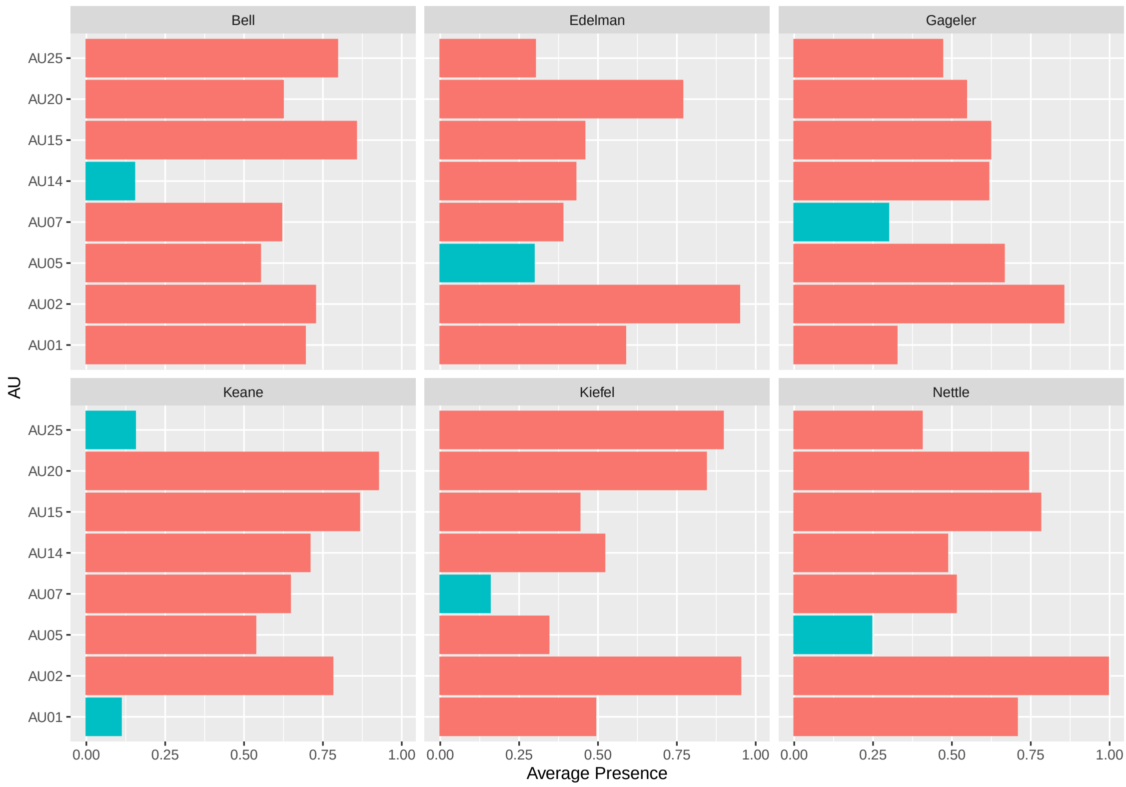


Figure 4.7: *The eight action units with at least five judges having average presence score over 25%.*

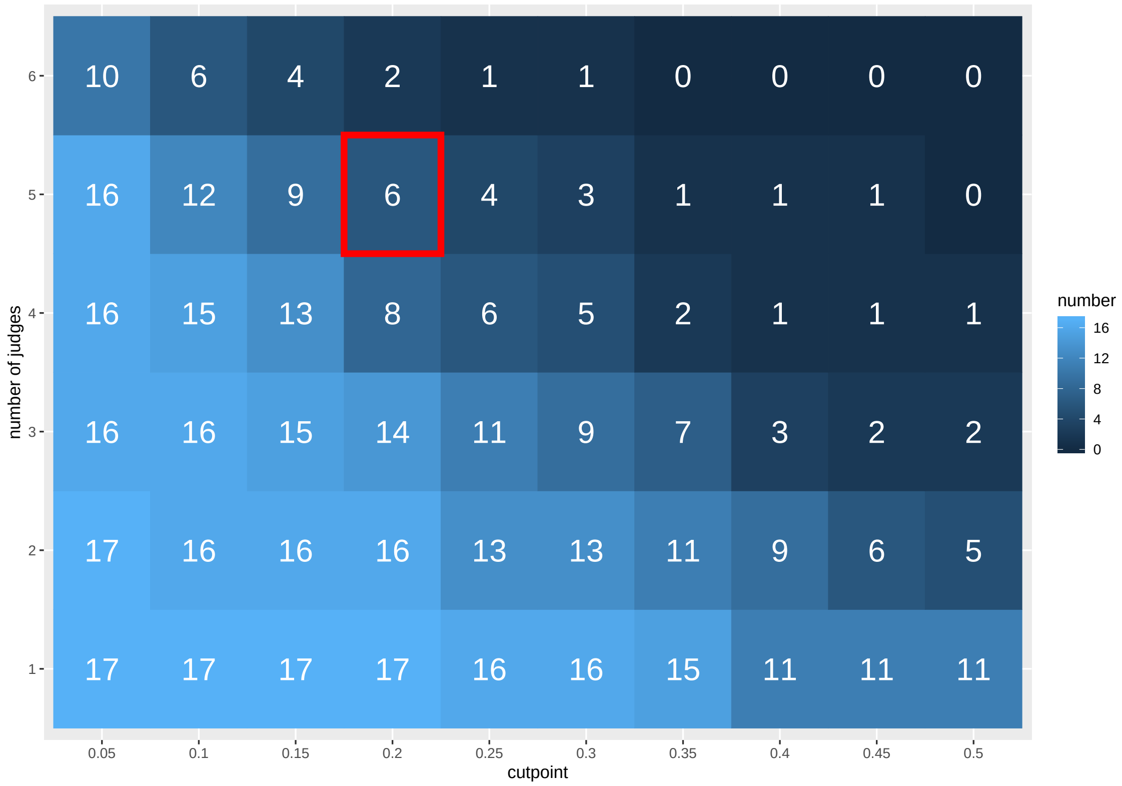


Figure 4.8: *heatmap for intensity*

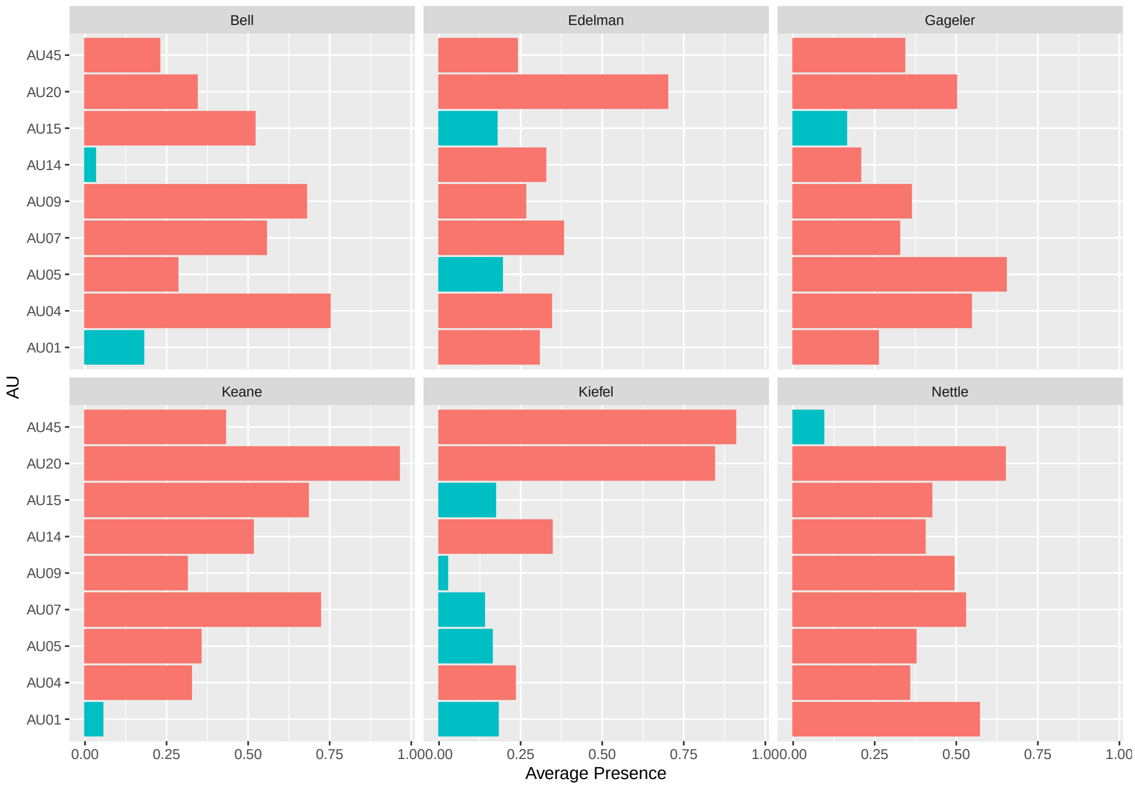


Figure 4.9: *selected au.*

4.3 Modelling result for presence

4.3.1 Model 1: Action unit

The first model in Equation 3.1 is estimated and the estimated marginal mean is computed in Table A.3 in the Appendix The `prob` column can be interpreted as after averaging over all the videos and speaking parties, the estimated mean probability for judge Edelman in action unit AU02 is 0.95, with a 95% confidence interval of [0.92, 0.97]. Notice that confidence intervals for a generalised linear model is asymmetric around the estimates because the linear symmetric interval of the mean need to be transferred via the inverse of link function to get the confidence interval for the response.

The Type III Analysis of Variance (ANOVA) test is conducted with the result shown in Table 4.6. It can be seen that judge, AU and their interactions are all significance, which validates our choice of Type III instead of Type II ANOVA, which is better if the interactions are not signifcant.

Table 4.6: *Type III ANOVA table for model 1. All the variables are significant.*

	LR Chisq	Df	Pr(>Chisq)
judge	579	5	6.1e-123
AU	1743	7	0.0e+00
judge:AU	3587	35	0.0e+00

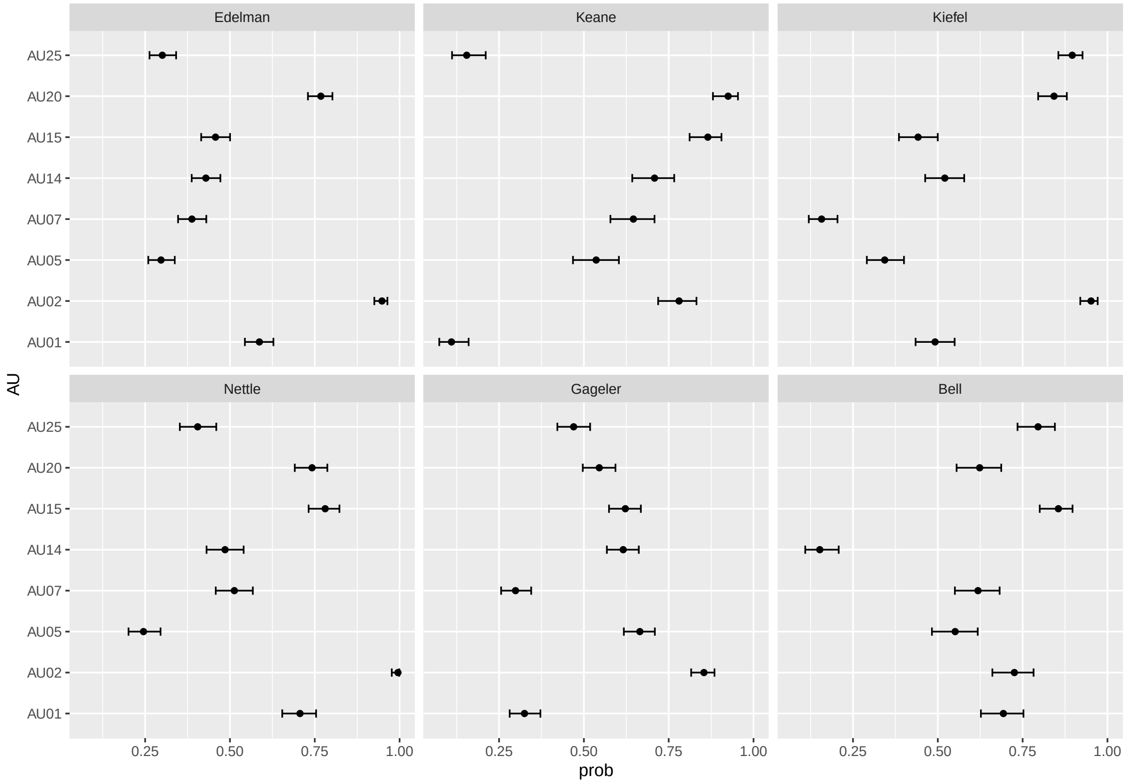


Figure 4.10: *The confidence interval for estimated mearginal mean in model 1*

Multiple comparison is then performed and the 95% confidence interval after bonferroni adjustment is plotted in Figure 4.10. This plot shows that the intervals for the judges are significantly different from one another as most of the intervals are not overlapping with each other. This confirms the necessity of including the interaction terms.

[Lastly talk about residuals]

4.3.2 Model 2: Video

The estimated marginal mean for the second model are presented in Table **??** in the Appendix due to its length. ANOVA test (Table 4.7) and multiple comparison is conducted

Table 4.7: *Type III ANOVA table for model 2. All the variables are significant.*

	LR Chisq	Df	Pr(>Chisq)
judge	144	2	4.3e-32
video	40	6	3.8e-07
AU	483	7	2.9e-100
judge:video	180	13	1.5e-31
judge:AU	3386	35	0.0e+00
video:AU	290	42	8.1e-39

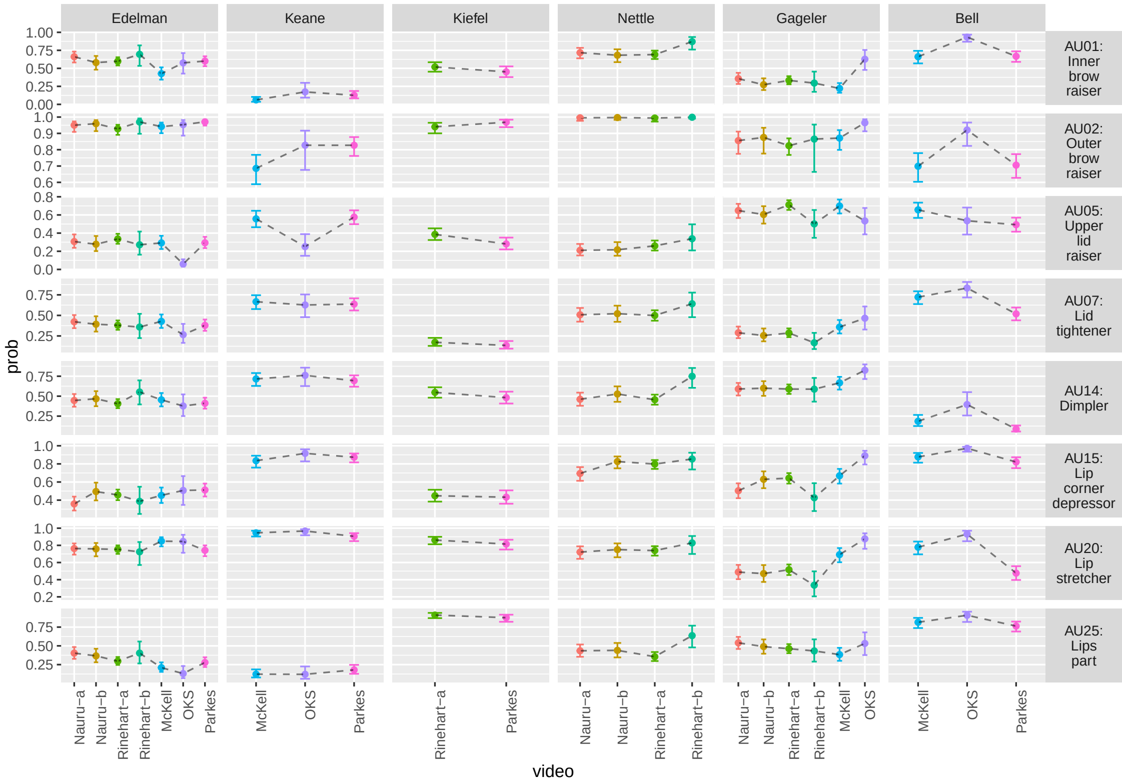


Figure 4.11: *The confidence interval for estimated meargínal mean in model 2*

as described before. Figure 4.11 presents the 95% confidence interval for each estimated marginal mean.

4.3.3 Model 3: Speaker

The estimated marginal mean are presented in Table **??** in the Appendix and plotted in Figure 4.12. ANOVA table in Tab 4.8 SAYS BLABLABLA.

Table 4.8: *Type III ANOVA table for model 3. NEED TO REWRITE HERE.*

	LR Chisq	Df	Pr(>Chisq)
judge	131.16	2	3.3e-29
speaker	0.12	1	7.3e-01
video	40.50	6	3.6e-07
AU	483.42	7	2.9e-100
judge:speaker	20.64	5	9.5e-04
judge:video	180.84	13	1.1e-31
judge:AU	3390.28	35	0.0e+00
video:AU	290.24	42	7.7e-39

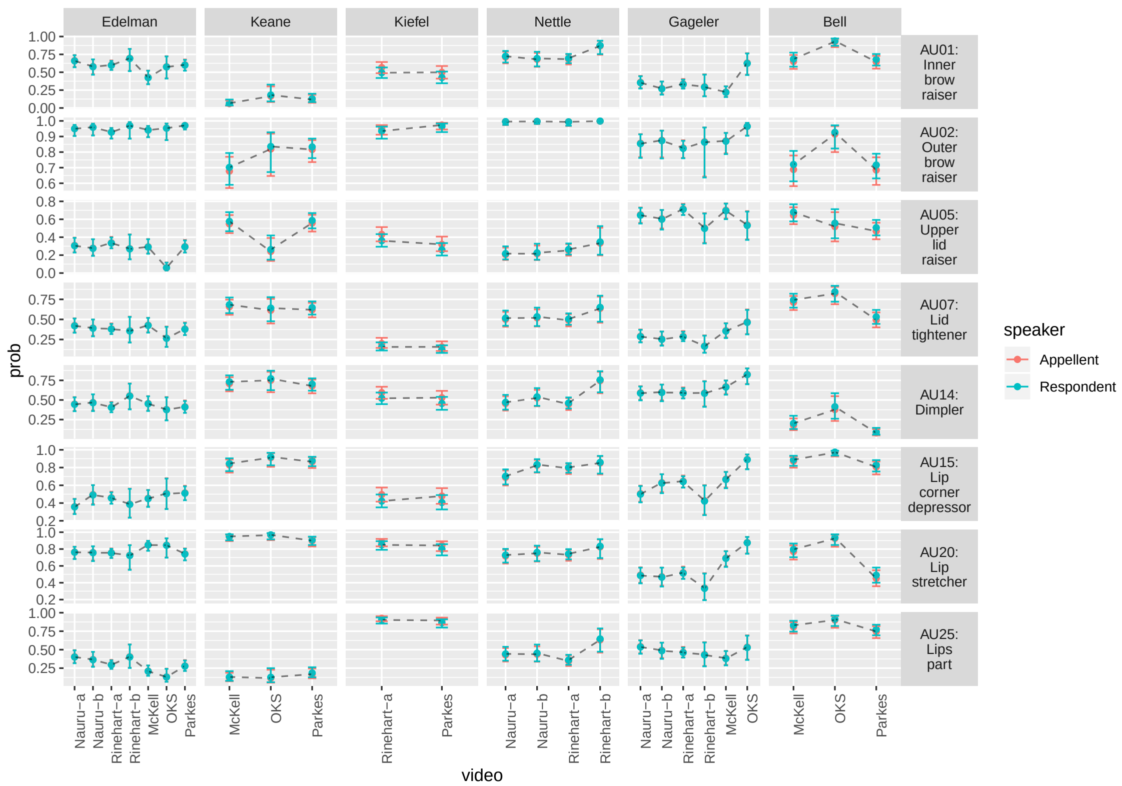


Figure 4.12: *The confidence interval for estimated mearginal mean in model 3*

4.4 Modelling result for intensity

4.4.1 Model 2: Video

The two part model in equation 3.7 is estimated for the intensity data. Estimated marginal mean, ANOVA and multiple comparison procedure are performed as modelling presence data. [should I include all ANOVA result?? - they are significant]

The 95% confidence interval plot is presented in Figure 4.13.

Edelman: AU04: lower for rinehart-a, McKell, OKS and Parkes AU07: lower for OKS AU09: significantly lower for rinehart-a, McKell, OKS and Parkes comparing to Nauru-a and Nauru-b

Keane: more intensity in AU07 for McKell and AU05 in OKS Kiefel: significantly different in AU05, 07 and 15 Nettle: significantly less in rinehart-a than Nauru-b in AU4, 9, 14 Gageler: more in OKS for AU05, AU20 CI for OKS is almost higher than that in other cases, except Nauru-b Bell: in OKS: AU01, 05, 14 (almost), 20

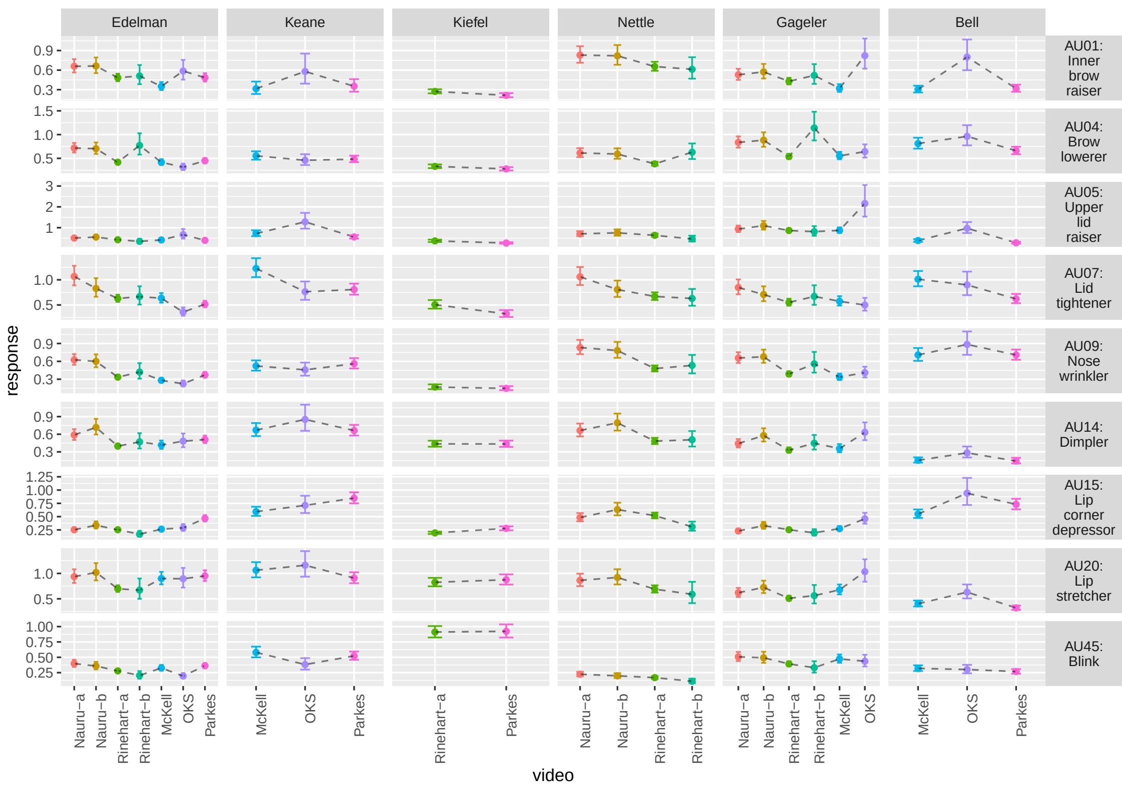


Figure 4.13: *The confidence interval for estimated mearginal mean in model 2*

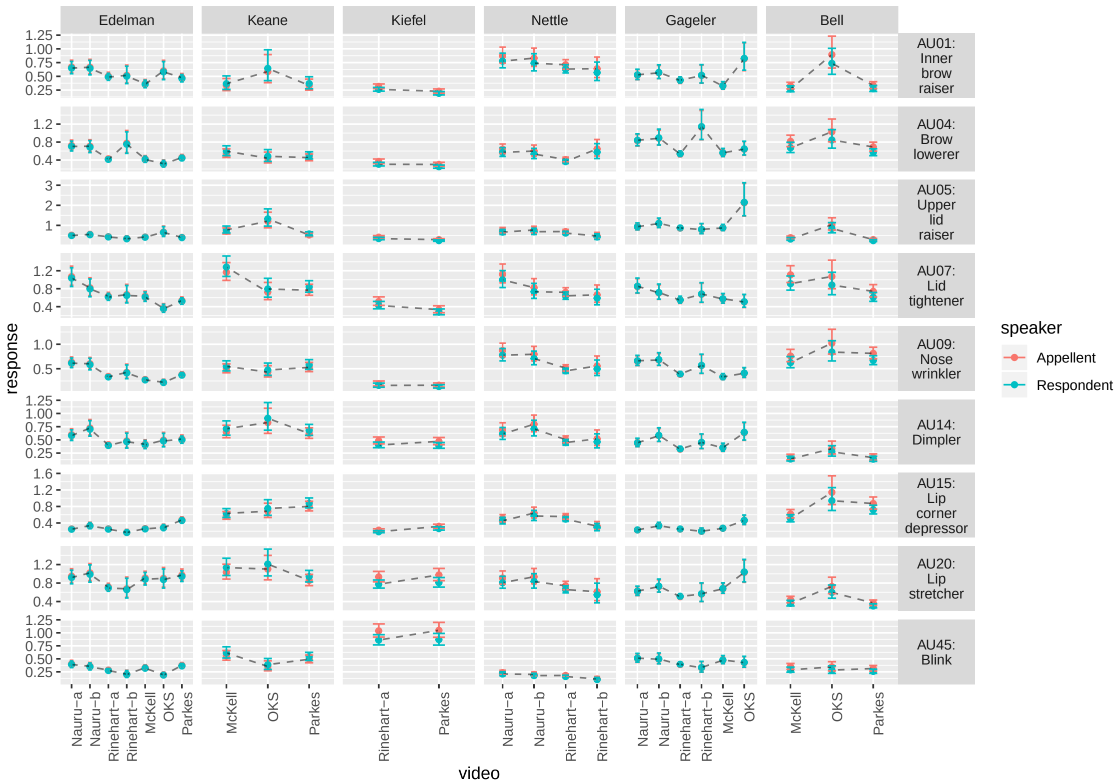


Figure 4.14: *The confidence interval for estimated mearginal mean in model 2*

4.4.2 Model 3: Speaker

The two part model in equation 3.11 is also estimated for the intensity data along with post-analysis procedure being conducted after model estimation. The 95% confidence interval plot is presented in Figure 4.14.

Chapter 5

Discussion

5.1 The expression of the justices by video

Many information can be observed from Figure 4.11 for presence and Figure 4.13. The discussion of the two plots will be focusing on answering the question: **For the same judge, whether the mean presence and mean intensity of the action units are the same or different for different videos**.

In general, we can see that facial expression of the justices are impartial as most of the 95% confidence intervals for the same judge and action unit overlaps in most of the videos in both plots. While at the same time, there are some time when in a particular video, a judge expressed significantly more or less of an expression and next, I will break it down to discuss them in more detail.

We can observe that Judge Edelman and Keane behave relatively consistent throughout all the videos since most of the intervals overlap with each other after the bonferroni adjustment. However, Edelman seems to express significantly less in action unit 5 in case OKS In terms of intensity, Edelman has significantly stronger expression in case Nauru-a, Nauru-b and Rinehart-a in action unit 4 and 9, but more relaxed expression in action unit 7 for case OKS. Based the nature of the 7 cases, we can see Edelman is more likely to express stronger emotion to the political and commercial cases and express less and softer at criminal cases.

One thing being interesting is about the case classification. Nauru-a and Nauru-b discuss the refugee status of the appellent, which are political-based. McKell and OKS are more criminal-based, relates to drug and sexual misconduct. Parkes is a civil case about negligence while Rinehart-a and Rinehart-b are business related cases.

For Keane, he appears significantly less action unit 5 in case OKS as with Edelman in Figure 4.11 but Figure 4.13 suggest he has more intense of expression in the same action unit 5. At the same time, Keane has also more intense expression of action unit 7 in case McKell. This would somehow show evidence that Keane is more responsive to the criminal cases than cases of other categories.

Kiefel and Nettle are relatively consistent in their expressions. The presence plot shows that Nettle has relatively higher mean in case Rinehart-b, but it is not significant when comparing the 955 confidence interval.

Gageler shows a consistent responsive expression in case OKS. In Figure 4.11, Gageler had significantly higher expression of action unit 15 adn 20. From the intensity plot in Figure 4.13, actiion unit 5 and 20 have significantly higher intensity. The common associated emotion of action unit 5, 15 adn 20 is anger, sad and fear in the six univeral emtions. Thus, we can see that Gageler tends to react negatively and more strongly to criminal cases.

Bell also shows a significantly higher proportion of negative emotion associated with action unit 1 and 15 in case OKS and the intensity of action unit 1, 5, 14 and 20 are also significantly higher in case OKS. These evidence indicate the same emotion pattern as judge Gageler to criminal cases. While at the same time, Bell is less reactive in the presence of action unit 07 and 20 in case Parkes and this shows that she has less negative emotion of anger and fear in Parkes, comparing to the criminal case OKS.

5.2 The expression of the justices by speaker

From the presence and intensity plot by speakers in Figure 4.12 and 4.14, we can observe that the video-wise difference between judge are still persist when the speaker effects are included in the model. However, the speaker-wise difference is not significant in terms of both presence and intensity for all the judges.

This result would be a validation that on the high court level, the judges are behaving impartial to different speaking parties.

5.3 Summary

To summarise, the above discussion of intensity and presence of action unit in different cases gives us several findings about the expression of the judges:

1) In general, the expression of the Justices are impartial, which is live up to the code of conduct from Chief Justices of Australia and Zealand (2017) and validate the result from Tutton, Mack, and Roach Anleu (2018).

2) When there is significantly present or intense expression of the Justices, it tends to be associated with negative emotion like sad, fear and anger. This could have implication on the mental wellbeing of the judges.

3) Some justices, for example Kean, Gageler and Bell are more responsive, both in frequency (mean presence) and magnitude (mean intensity) to criminal cases. This could show that it is harder for judges to keep a still face when the content of a case goes against human nature.

Chapter 6

Conclusion

6.1 Limitation

I will now briefly discuss some of the limitation of this work. The current image frames are extracted at every one minute interval. However, some facial expressions may only last for a few second. Thus more frequent time interval could be used for getting more precise facial information of the judges. Also, if videos of the high court heraing could be accepted as input for facial expression detection, the potential correlation of emotion could be captured even better.

In my work, seven videos are being processed into the facial recognition software and more videos could be processed to get more robust results. The reason for not processing more videos in the current study is because the resolution of publicly available vidoes from the high court has only 720 pixels while the facial recognition software, OpenFace requires at least 30 pixels for a face to be detected. This means that we have to choose videos where three or five judges are presented.

However, this work has established a workflow for extracting facial expressions of human from videos. As long as more higher resolution videos are available, facial variables can be extracted via the same fashion.

6.2 Future work

In the future, more work could be done to extract facial expressions of the Justices from videos using OpenFace. This could enable the researchers to capture more precise expression of the judges. However, as the extraction becomes more frequent, the problem of serial correlation could rise and appropriate modelling technique should be utilised to accommodate for this feature of data.

Appendix A

Appendix

A.1 List of videos used in the project

Table A.1: *Details of videos processed.*

Case	Name	AV recording link	Judge
The Republic of Nauru v WET040 [No. 2] [2018] HCA 60	Nauru_a	http://www.hcourt.gov.au/cases/cases-av/av-2018-11-07a	Nettle, Gageler, Edelman
TTY167 v Republic of Nauru [2018] HCA 61	Nauru_b	http://www.hcourt.gov.au/cases/cases-av/av-2018-11-07b	Nettle, Gageler, Edelman
Rinehart v Hancock Prospecting Pty Ltd [2019] HCA 13	Rinehart_a	http://www.hcourt.gov.au/cases/cases-av/av-2018-11-13	Gordon, Gageler, Bell, Keane, Edelman
Rinehart v Hancock Prospecting Pty Ltd [2019] HCA 13	Rinehart_b	http://www.hcourt.gov.au/cases/cases-av/av-2018-11-14a	Gordon, Keane, Bell, Gageler, Edelman

Case	Name	AV recording link	Judge
Parkes Shire Council v South West Helicopters Pty Limited [2019] HCA 14	`Parkes`	http://www.hcourt.gov.au/cases/cases-av/av-2018-11-14b	Gordon, Bell, Kiefel, Keane, Edelman
McKell v The Queen [2019] HCA 5	`McKell`	http://www.hcourt.gov.au/cases/cases-av/av-2018-12-07	Gordon, Gageler, Kiefel, Nettle, Edelman
OKS v Western Australia [2019] HCA 10	`OKS`	http://www.hcourt.gov.au/cases/cases-av/av-2019-02-14	Gordon, Gageler, Kiefel, Nettle, Edelman

A.2 List of the name of ction units

Table A.2: *The meaning of all the action unit estimated*

AU-meaning	emtion
AU01: Inner brow raiser	sadness, surprise and fear
AU02: Outer brow raiser	surprise, fear and interested
AU04: Brow lowerer	sadness, fear, anger and confusion
AU05: Upper lid raiser	surprise, fear, anger adn interested
AU06: Cheek raiser	happiness
AU07: Lid tightener	fear, anger and confusion
AU09: Nose wrinkler	disgust
AU10: Upper lip raiser	NA
AU12: Lip corner puller	happiness and possibly contempt if appears unilateraly
AU14: Dimpler	contempt or boredom if appears unilateraly
AU15: Lip corner depressor	sadness, disgust and confusion
AU17: Chin raiser	interested and confusion
AU20: Lip stretcher	fear
AU23: Lip tightener	anger, confusion or bordom
AU25: Lips part	NA
AU26: Jaw drop	surprise and fear
AU28: Lip suck	NA
AU45: Blink	NA

A.3 Model estimation result

Table A.4: *model result 2 for mean presence*

judge	video	AU	prob	SE	asymp.LCL	asymp.UCL
Edelman	Nauru-a	AU01	0.661	0.0282	0.582	0.73
Nettle	Nauru-a	AU01	0.717	0.0270	0.639	0.78
Gageler	Nauru-a	AU01	0.357	0.0290	0.283	0.44
Edelman	Nauru-b	AU01	0.580	0.0358	0.482	0.67
Nettle	Nauru-b	AU01	0.682	0.0334	0.586	0.76
Gageler	Nauru-b	AU01	0.273	0.0303	0.199	0.36
Edelman	Rinehart-a	AU01	0.598	0.0213	0.540	0.65
Kiefel	Rinehart-a	AU01	0.519	0.0245	0.454	0.58
Nettle	Rinehart-a	AU01	0.691	0.0217	0.630	0.75
Gageler	Rinehart-a	AU01	0.333	0.0211	0.278	0.39
Edelman	Rinehart-b	AU01	0.695	0.0540	0.534	0.82
Nettle	Rinehart-b	AU01	0.871	0.0315	0.761	0.93
Gageler	Rinehart-b	AU01	0.295	0.0532	0.174	0.45
Edelman	McKell	AU01	0.426	0.0320	0.343	0.51
Keane	McKell	AU01	0.062	0.0120	0.036	0.10
Gageler	McKell	AU01	0.222	0.0250	0.162	0.30
Bell	McKell	AU01	0.661	0.0327	0.569	0.74
Edelman	OKS	AU01	0.576	0.0544	0.427	0.71
Keane	OKS	AU01	0.173	0.0379	0.093	0.30
Gageler	OKS	AU01	0.627	0.0527	0.478	0.75
Bell	OKS	AU01	0.934	0.0173	0.869	0.97
Edelman	Parkes	AU01	0.601	0.0257	0.530	0.67
Keane	Parkes	AU01	0.126	0.0188	0.083	0.19
Kiefel	Parkes	AU01	0.452	0.0278	0.379	0.53
Bell	Parkes	AU01	0.667	0.0275	0.590	0.74
Edelman	Nauru-a	AU02	0.950	0.0114	0.909	0.97

Table A.4: *model result 2 for mean presence*

judge	video	AU	prob	SE	asymp.LCL	asymp.UCL
Nettle	Nauru-a	AU02	0.995	0.0028	0.977	1.00
Gageler	Nauru-a	AU02	0.856	0.0250	0.775	0.91
Edelman	Nauru-b	AU02	0.959	0.0116	0.914	0.98
Nettle	Nauru-b	AU02	0.997	0.0020	0.983	1.00
Gageler	Nauru-b	AU02	0.875	0.0286	0.776	0.93
Edelman	Rinehart-a	AU02	0.928	0.0112	0.891	0.95
Kiefel	Rinehart-a	AU02	0.940	0.0116	0.900	0.96
Nettle	Rinehart-a	AU02	0.994	0.0034	0.972	1.00
Gageler	Rinehart-a	AU02	0.824	0.0188	0.768	0.87
Edelman	Rinehart-b	AU02	0.970	0.0142	0.898	0.99
Nettle	Rinehart-b	AU02	0.999	0.0009	0.991	1.00
Gageler	Rinehart-b	AU02	0.865	0.0510	0.664	0.95
Edelman	McKell	AU02	0.942	0.0117	0.901	0.97
Keane	McKell	AU02	0.686	0.0337	0.589	0.77
Gageler	McKell	AU02	0.871	0.0222	0.799	0.92
Bell	McKell	AU02	0.699	0.0329	0.603	0.78
Edelman	OKS	AU02	0.953	0.0160	0.886	0.98
Keane	OKS	AU02	0.827	0.0441	0.676	0.92
Gageler	OKS	AU02	0.965	0.0121	0.913	0.99
Bell	OKS	AU02	0.921	0.0248	0.823	0.97
Edelman	Parkes	AU02	0.971	0.0064	0.948	0.98
Keane	Parkes	AU02	0.827	0.0214	0.762	0.88
Kiefel	Parkes	AU02	0.968	0.0080	0.938	0.98
Bell	Parkes	AU02	0.705	0.0272	0.628	0.77
Edelman	Nauru-a	AU05	0.307	0.0276	0.238	0.39
Nettle	Nauru-a	AU05	0.210	0.0235	0.154	0.28
Gageler	Nauru-a	AU05	0.648	0.0292	0.566	0.72

Table A.4: *model result 2 for mean presence*

judge	video	AU	prob	SE	asymp.LCL	asymp.UCL
Edelman	Nauru-b	AU05	0.278	0.0310	0.202	0.37
Nettle	Nauru-b	AU05	0.217	0.0279	0.151	0.30
Gageler	Nauru-b	AU05	0.605	0.0359	0.505	0.70
Edelman	Rinehart-a	AU05	0.335	0.0205	0.282	0.39
Kiefel	Rinehart-a	AU05	0.386	0.0240	0.324	0.45
Nettle	Rinehart-a	AU05	0.260	0.0205	0.208	0.32
Gageler	Rinehart-a	AU05	0.712	0.0199	0.655	0.76
Edelman	Rinehart-b	AU05	0.271	0.0479	0.163	0.42
Nettle	Rinehart-b	AU05	0.338	0.0547	0.209	0.50
Gageler	Rinehart-b	AU05	0.501	0.0588	0.348	0.65
Edelman	McKell	AU05	0.292	0.0272	0.225	0.37
Keane	McKell	AU05	0.557	0.0340	0.465	0.65
Gageler	McKell	AU05	0.699	0.0287	0.616	0.77
Bell	McKell	AU05	0.656	0.0315	0.567	0.74
Edelman	OKS	AU05	0.060	0.0142	0.031	0.11
Keane	OKS	AU05	0.251	0.0448	0.150	0.39
Gageler	OKS	AU05	0.534	0.0555	0.386	0.68
Bell	OKS	AU05	0.536	0.0570	0.384	0.68
Edelman	Parkes	AU05	0.293	0.0231	0.235	0.36
Keane	Parkes	AU05	0.577	0.0286	0.498	0.65
Kiefel	Parkes	AU05	0.281	0.0243	0.220	0.35
Bell	Parkes	AU05	0.493	0.0289	0.416	0.57
Edelman	Nauru-a	AU07	0.422	0.0299	0.345	0.50
Nettle	Nauru-a	AU07	0.507	0.0312	0.424	0.59
Gageler	Nauru-a	AU07	0.289	0.0263	0.223	0.36
Edelman	Nauru-b	AU07	0.393	0.0350	0.303	0.49
Nettle	Nauru-b	AU07	0.521	0.0370	0.422	0.62

Table A.4: *model result 2 for mean presence*

judge	video	AU	prob	SE	asymp.LCL	asymp.UCL
Gageler	Nauru-b	AU07	0.255	0.0291	0.185	0.34
Edelman	Rinehart-a	AU07	0.380	0.0212	0.325	0.44
Kiefel	Rinehart-a	AU07	0.173	0.0181	0.129	0.23
Nettle	Rinehart-a	AU07	0.499	0.0237	0.436	0.56
Gageler	Rinehart-a	AU07	0.286	0.0199	0.235	0.34
Edelman	Rinehart-b	AU07	0.358	0.0563	0.224	0.52
Nettle	Rinehart-b	AU07	0.641	0.0571	0.478	0.78
Gageler	Rinehart-b	AU07	0.167	0.0362	0.091	0.29
Edelman	McKell	AU07	0.427	0.0307	0.347	0.51
Keane	McKell	AU07	0.667	0.0316	0.577	0.75
Gageler	McKell	AU07	0.358	0.0307	0.280	0.44
Bell	McKell	AU07	0.722	0.0291	0.638	0.79
Edelman	OKS	AU07	0.265	0.0434	0.166	0.40
Keane	OKS	AU07	0.627	0.0525	0.479	0.75
Gageler	OKS	AU07	0.466	0.0536	0.328	0.61
Bell	OKS	AU07	0.833	0.0347	0.718	0.91
Edelman	Parkes	AU07	0.379	0.0258	0.312	0.45
Keane	Parkes	AU07	0.637	0.0277	0.560	0.71
Kiefel	Parkes	AU07	0.135	0.0171	0.095	0.19
Bell	Parkes	AU07	0.518	0.0292	0.440	0.60
Edelman	Nauru-a	AU14	0.446	0.0299	0.368	0.53
Nettle	Nauru-a	AU14	0.461	0.0308	0.380	0.54
Gageler	Nauru-a	AU14	0.590	0.0295	0.509	0.67
Edelman	Nauru-b	AU14	0.467	0.0355	0.374	0.56
Nettle	Nauru-b	AU14	0.527	0.0364	0.429	0.62
Gageler	Nauru-b	AU14	0.600	0.0346	0.504	0.69
Edelman	Rinehart-a	AU14	0.405	0.0211	0.350	0.46

Table A.4: *model result 2 for mean presence*

judge	video	AU	prob	SE	asymp.LCL	asymp.UCL
Kiefel	Rinehart-a	AU14	0.547	0.0244	0.481	0.61
Nettle	Rinehart-a	AU14	0.455	0.0235	0.393	0.52
Gageler	Rinehart-a	AU14	0.589	0.0221	0.529	0.65
Edelman	Rinehart-b	AU14	0.552	0.0578	0.397	0.70
Nettle	Rinehart-b	AU14	0.749	0.0468	0.604	0.85
Gageler	Rinehart-b	AU14	0.588	0.0569	0.431	0.73
Edelman	McKell	AU14	0.454	0.0315	0.372	0.54
Keane	McKell	AU14	0.716	0.0302	0.628	0.79
Gageler	McKell	AU14	0.667	0.0299	0.583	0.74
Bell	McKell	AU14	0.185	0.0257	0.126	0.26
Edelman	OKS	AU14	0.377	0.0516	0.251	0.52
Keane	OKS	AU14	0.761	0.0432	0.627	0.86
Gageler	OKS	AU14	0.825	0.0338	0.715	0.90
Bell	OKS	AU14	0.395	0.0560	0.258	0.55
Edelman	Parkes	AU14	0.410	0.0257	0.343	0.48
Keane	Parkes	AU14	0.694	0.0265	0.618	0.76
Kiefel	Parkes	AU14	0.482	0.0278	0.408	0.56
Bell	Parkes	AU14	0.088	0.0138	0.057	0.13
Edelman	Nauru-a	AU15	0.358	0.0287	0.285	0.44
Nettle	Nauru-a	AU15	0.694	0.0283	0.613	0.76
Gageler	Nauru-a	AU15	0.504	0.0308	0.421	0.59
Edelman	Nauru-b	AU15	0.495	0.0369	0.397	0.59
Nettle	Nauru-b	AU15	0.826	0.0243	0.751	0.88
Gageler	Nauru-b	AU15	0.629	0.0349	0.532	0.72
Edelman	Rinehart-a	AU15	0.457	0.0218	0.400	0.52
Kiefel	Rinehart-a	AU15	0.448	0.0244	0.384	0.51
Nettle	Rinehart-a	AU15	0.798	0.0182	0.745	0.84

Table A.4: *model result 2 for mean presence*

judge	video	AU	prob	SE	asymp.LCL	asymp.UCL
Gageler	Rinehart-a	AU15	0.643	0.0215	0.583	0.70
Edelman	Rinehart-b	AU15	0.387	0.0574	0.248	0.55
Nettle	Rinehart-b	AU15	0.854	0.0337	0.738	0.92
Gageler	Rinehart-b	AU15	0.426	0.0590	0.279	0.59
Edelman	McKell	AU15	0.452	0.0320	0.368	0.54
Keane	McKell	AU15	0.835	0.0243	0.759	0.89
Gageler	McKell	AU15	0.669	0.0303	0.583	0.74
Bell	McKell	AU15	0.877	0.0197	0.814	0.92
Edelman	OKS	AU15	0.507	0.0613	0.347	0.67
Keane	OKS	AU15	0.916	0.0234	0.828	0.96
Gageler	OKS	AU15	0.890	0.0271	0.794	0.94
Bell	OKS	AU15	0.972	0.0089	0.935	0.99
Edelman	Parkes	AU15	0.512	0.0267	0.440	0.58
Keane	Parkes	AU15	0.874	0.0180	0.817	0.91
Kiefel	Parkes	AU15	0.432	0.0276	0.360	0.51
Bell	Parkes	AU15	0.821	0.0223	0.753	0.87
Edelman	Nauru-a	AU20	0.763	0.0243	0.692	0.82
Nettle	Nauru-a	AU20	0.721	0.0272	0.643	0.79
Gageler	Nauru-a	AU20	0.489	0.0312	0.406	0.57
Edelman	Nauru-b	AU20	0.758	0.0289	0.673	0.83
Nettle	Nauru-b	AU20	0.751	0.0301	0.661	0.82
Gageler	Nauru-b	AU20	0.471	0.0370	0.374	0.57
Edelman	Rinehart-a	AU20	0.754	0.0184	0.701	0.80
Kiefel	Rinehart-a	AU20	0.861	0.0160	0.812	0.90
Nettle	Rinehart-a	AU20	0.739	0.0204	0.681	0.79
Gageler	Rinehart-a	AU20	0.516	0.0230	0.454	0.58
Edelman	Rinehart-b	AU20	0.725	0.0505	0.571	0.84

Table A.4: *model result 2 for mean presence*

judge	video	AU	prob	SE	asymp.LCL	asymp.UCL
Nettle	Rinehart-b	AU20	0.828	0.0384	0.700	0.91
Gageler	Rinehart-b	AU20	0.336	0.0556	0.206	0.50
Edelman	McKell	AU20	0.849	0.0195	0.789	0.89
Keane	McKell	AU20	0.946	0.0119	0.903	0.97
Gageler	McKell	AU20	0.692	0.0310	0.603	0.77
Bell	McKell	AU20	0.779	0.0277	0.695	0.84
Edelman	OKS	AU20	0.845	0.0382	0.713	0.92
Keane	OKS	AU20	0.967	0.0115	0.918	0.99
Gageler	OKS	AU20	0.876	0.0324	0.760	0.94
Bell	OKS	AU20	0.931	0.0211	0.848	0.97
Edelman	Parkes	AU20	0.742	0.0234	0.674	0.80
Keane	Parkes	AU20	0.905	0.0169	0.849	0.94
Kiefel	Parkes	AU20	0.815	0.0211	0.751	0.87
Bell	Parkes	AU20	0.476	0.0301	0.397	0.56
Edelman	Nauru-a	AU25	0.403	0.0295	0.327	0.48
Nettle	Nauru-a	AU25	0.434	0.0307	0.354	0.52
Gageler	Nauru-a	AU25	0.540	0.0302	0.459	0.62
Edelman	Nauru-b	AU25	0.367	0.0338	0.281	0.46
Nettle	Nauru-b	AU25	0.440	0.0362	0.346	0.54
Gageler	Nauru-b	AU25	0.490	0.0359	0.395	0.59
Edelman	Rinehart-a	AU25	0.296	0.0196	0.246	0.35
Kiefel	Rinehart-a	AU25	0.910	0.0127	0.870	0.94
Nettle	Rinehart-a	AU25	0.356	0.0224	0.298	0.42
Gageler	Rinehart-a	AU25	0.462	0.0226	0.402	0.52
Edelman	Rinehart-b	AU25	0.403	0.0559	0.266	0.56
Nettle	Rinehart-b	AU25	0.636	0.0552	0.480	0.77
Gageler	Rinehart-b	AU25	0.432	0.0568	0.290	0.59

Table A.4: *model result 2 for mean presence*

judge	video	AU	prob	SE	asymp.LCL	asymp.UCL
Edelman	McKell	AU25	0.210	0.0235	0.154	0.28
Keane	McKell	AU25	0.123	0.0197	0.079	0.19
Gageler	McKell	AU25	0.383	0.0325	0.301	0.47
Bell	McKell	AU25	0.815	0.0251	0.738	0.87
Edelman	OKS	AU25	0.131	0.0293	0.070	0.23
Keane	OKS	AU25	0.121	0.0297	0.061	0.23
Gageler	OKS	AU25	0.532	0.0580	0.378	0.68
Bell	OKS	AU25	0.907	0.0242	0.819	0.96
Edelman	Parkes	AU25	0.278	0.0242	0.218	0.35
Keane	Parkes	AU25	0.179	0.0220	0.128	0.25
Kiefel	Parkes	AU25	0.875	0.0174	0.821	0.92
Bell	Parkes	AU25	0.764	0.0247	0.691	0.82

Table A.5: *model result 3 for mean presence*

judge	AU	speaker	video	prob	SE	asymp.LCL	asymp.UCL
Edelman	AU01	Appellent	Nauru-a	0.663	0.02859	0.575	0.74
Nettle	AU01	Appellent	Nauru-a	0.712	0.02798	0.625	0.79
Gageler	AU01	Appellent	Nauru-a	0.359	0.02957	0.278	0.45
Edelman	AU02	Appellent	Nauru-a	0.951	0.01135	0.905	0.97
Nettle	AU02	Appellent	Nauru-a	0.995	0.00284	0.973	1.00
Gageler	AU02	Appellent	Nauru-a	0.857	0.02498	0.768	0.92
Edelman	AU05	Appellent	Nauru-a	0.308	0.02803	0.233	0.40
Nettle	AU05	Appellent	Nauru-a	0.206	0.02371	0.146	0.28
Gageler	AU05	Appellent	Nauru-a	0.651	0.02961	0.560	0.73
Edelman	AU07	Appellent	Nauru-a	0.424	0.03041	0.339	0.51

Table A.5: *model result 3 for mean presence*

judge	AU	speaker	video	prob	SE	asymp.LCL	asymp.UCL
Nettle	AU07	Appellent	Nauru-a	0.501	0.03210	0.409	0.59
Gageler	AU07	Appellent	Nauru-a	0.291	0.02687	0.219	0.37
Edelman	AU14	Appellent	Nauru-a	0.448	0.03037	0.362	0.54
Nettle	AU14	Appellent	Nauru-a	0.455	0.03161	0.365	0.55
Gageler	AU14	Appellent	Nauru-a	0.592	0.03000	0.503	0.68
Edelman	AU15	Appellent	Nauru-a	0.360	0.02916	0.280	0.45
Nettle	AU15	Appellent	Nauru-a	0.689	0.02926	0.598	0.77
Gageler	AU15	Appellent	Nauru-a	0.506	0.03134	0.416	0.60
Edelman	AU20	Appellent	Nauru-a	0.765	0.02450	0.686	0.83
Nettle	AU20	Appellent	Nauru-a	0.716	0.02811	0.628	0.79
Gageler	AU20	Appellent	Nauru-a	0.492	0.03176	0.400	0.58
Edelman	AU25	Appellent	Nauru-a	0.405	0.03000	0.321	0.49
Nettle	AU25	Appellent	Nauru-a	0.428	0.03145	0.340	0.52
Gageler	AU25	Appellent	Nauru-a	0.543	0.03071	0.453	0.63
Edelman	AU01	Respondent	Nauru-a	0.659	0.02919	0.569	0.74
Nettle	AU01	Respondent	Nauru-a	0.724	0.02795	0.636	0.80
Gageler	AU01	Respondent	Nauru-a	0.353	0.02990	0.272	0.44
Edelman	AU02	Respondent	Nauru-a	0.950	0.01158	0.903	0.97
Nettle	AU02	Respondent	Nauru-a	0.996	0.00267	0.975	1.00
Gageler	AU02	Respondent	Nauru-a	0.854	0.02563	0.763	0.91
Edelman	AU05	Respondent	Nauru-a	0.304	0.02824	0.229	0.39
Nettle	AU05	Respondent	Nauru-a	0.216	0.02504	0.152	0.30
Gageler	AU05	Respondent	Nauru-a	0.645	0.03037	0.552	0.73
Edelman	AU07	Respondent	Nauru-a	0.420	0.03082	0.334	0.51
Nettle	AU07	Respondent	Nauru-a	0.516	0.03294	0.421	0.61
Gageler	AU07	Respondent	Nauru-a	0.285	0.02707	0.213	0.37
Edelman	AU14	Respondent	Nauru-a	0.443	0.03081	0.356	0.53

Table A.5: *model result 3 for mean presence*

judge	AU	speaker	video	prob	SE	asymp.LCL	asymp.UCL
Nettle	AU14	Respondent	Nauru-a	0.470	0.03263	0.377	0.56
Gageler	AU14	Respondent	Nauru-a	0.586	0.03073	0.495	0.67
Edelman	AU15	Respondent	Nauru-a	0.356	0.02946	0.275	0.45
Nettle	AU15	Respondent	Nauru-a	0.702	0.02932	0.610	0.78
Gageler	AU15	Respondent	Nauru-a	0.500	0.03195	0.408	0.59
Edelman	AU20	Respondent	Nauru-a	0.761	0.02506	0.681	0.83
Nettle	AU20	Respondent	Nauru-a	0.729	0.02806	0.640	0.80
Gageler	AU20	Respondent	Nauru-a	0.485	0.03234	0.392	0.58
Edelman	AU25	Respondent	Nauru-a	0.401	0.03038	0.316	0.49
Nettle	AU25	Respondent	Nauru-a	0.443	0.03254	0.351	0.54
Gageler	AU25	Respondent	Nauru-a	0.536	0.03139	0.445	0.63
Edelman	AU01	Appellent	Nauru-b	0.580	0.03581	0.474	0.68
Nettle	AU01	Appellent	Nauru-b	0.680	0.03357	0.576	0.77
Gageler	AU01	Appellent	Nauru-b	0.273	0.03042	0.194	0.37
Edelman	AU02	Appellent	Nauru-b	0.960	0.01157	0.909	0.98
Nettle	AU02	Appellent	Nauru-b	0.997	0.00198	0.980	1.00
Gageler	AU02	Appellent	Nauru-b	0.876	0.02854	0.766	0.94
Edelman	AU05	Appellent	Nauru-b	0.278	0.03110	0.197	0.38
Nettle	AU05	Appellent	Nauru-b	0.215	0.02784	0.145	0.31
Gageler	AU05	Appellent	Nauru-b	0.605	0.03596	0.497	0.70
Edelman	AU07	Appellent	Nauru-b	0.393	0.03500	0.297	0.50
Nettle	AU07	Appellent	Nauru-b	0.519	0.03704	0.412	0.62
Gageler	AU07	Appellent	Nauru-b	0.256	0.02922	0.180	0.35
Edelman	AU14	Appellent	Nauru-b	0.468	0.03557	0.367	0.57
Nettle	AU14	Appellent	Nauru-b	0.525	0.03646	0.419	0.63
Gageler	AU14	Appellent	Nauru-b	0.600	0.03463	0.497	0.70
Edelman	AU15	Appellent	Nauru-b	0.495	0.03690	0.390	0.60

Table A.5: *model result 3 for mean presence*

judge	AU	speaker	video	prob	SE	asymp.LCL	asymp.UCL
Nettle	AU15	Appellent	Nauru-b	0.825	0.02440	0.743	0.89
Gageler	AU15	Appellent	Nauru-b	0.630	0.03496	0.524	0.73
Edelman	AU20	Appellent	Nauru-b	0.759	0.02888	0.665	0.83
Nettle	AU20	Appellent	Nauru-b	0.749	0.03027	0.652	0.83
Gageler	AU20	Appellent	Nauru-b	0.472	0.03708	0.367	0.58
Edelman	AU25	Appellent	Nauru-b	0.367	0.03389	0.275	0.47
Nettle	AU25	Appellent	Nauru-b	0.438	0.03626	0.337	0.55
Gageler	AU25	Appellent	Nauru-b	0.491	0.03593	0.388	0.59
Edelman	AU01	Respondent	Nauru-b	0.576	0.03764	0.464	0.68
Nettle	AU01	Respondent	Nauru-b	0.693	0.03544	0.582	0.79
Gageler	AU01	Respondent	Nauru-b	0.268	0.03170	0.186	0.37
Edelman	AU02	Respondent	Nauru-b	0.959	0.01190	0.906	0.98
Nettle	AU02	Respondent	Nauru-b	0.997	0.00187	0.981	1.00
Gageler	AU02	Respondent	Nauru-b	0.873	0.02964	0.759	0.94
Edelman	AU05	Respondent	Nauru-b	0.274	0.03220	0.191	0.38
Nettle	AU05	Respondent	Nauru-b	0.226	0.03077	0.149	0.33
Gageler	AU05	Respondent	Nauru-b	0.599	0.03818	0.485	0.70
Edelman	AU07	Respondent	Nauru-b	0.389	0.03656	0.289	0.50
Nettle	AU07	Respondent	Nauru-b	0.534	0.04006	0.418	0.65
Gageler	AU07	Respondent	Nauru-b	0.251	0.03042	0.173	0.35
Edelman	AU14	Respondent	Nauru-b	0.463	0.03734	0.358	0.57
Nettle	AU14	Respondent	Nauru-b	0.540	0.03949	0.425	0.65
Gageler	AU14	Respondent	Nauru-b	0.594	0.03693	0.484	0.70
Edelman	AU15	Respondent	Nauru-b	0.491	0.03866	0.380	0.60
Nettle	AU15	Respondent	Nauru-b	0.834	0.02502	0.748	0.89
Gageler	AU15	Respondent	Nauru-b	0.624	0.03718	0.511	0.72
Edelman	AU20	Respondent	Nauru-b	0.756	0.03038	0.657	0.83

Table A.5: *model result 3 for mean presence*

judge	AU	speaker	video	prob	SE	asymp.LCL	asymp.UCL
Nettle	AU20	Respondent	Nauru-b	0.761	0.03151	0.657	0.84
Gageler	AU20	Respondent	Nauru-b	0.465	0.03915	0.355	0.58
Edelman	AU25	Respondent	Nauru-b	0.363	0.03538	0.267	0.47
Nettle	AU25	Respondent	Nauru-b	0.453	0.03963	0.342	0.57
Gageler	AU25	Respondent	Nauru-b	0.484	0.03811	0.376	0.59
Edelman	AU01	Appellent	Rinehart-a	0.601	0.02273	0.534	0.67
Kiefel	AU01	Appellent	Rinehart-a	0.567	0.02701	0.487	0.64
Nettle	AU01	Appellent	Rinehart-a	0.683	0.02413	0.609	0.75
Gageler	AU01	Appellent	Rinehart-a	0.336	0.02278	0.273	0.41
Edelman	AU02	Appellent	Rinehart-a	0.929	0.01136	0.888	0.96
Kiefel	AU02	Appellent	Rinehart-a	0.951	0.01007	0.912	0.97
Nettle	AU02	Appellent	Rinehart-a	0.994	0.00355	0.967	1.00
Gageler	AU02	Appellent	Rinehart-a	0.827	0.01940	0.763	0.88
Edelman	AU05	Appellent	Rinehart-a	0.338	0.02193	0.277	0.40
Kiefel	AU05	Appellent	Rinehart-a	0.431	0.02744	0.354	0.51
Nettle	AU05	Appellent	Rinehart-a	0.252	0.02193	0.194	0.32
Gageler	AU05	Appellent	Rinehart-a	0.715	0.02125	0.650	0.77
Edelman	AU07	Appellent	Rinehart-a	0.383	0.02275	0.319	0.45
Kiefel	AU07	Appellent	Rinehart-a	0.200	0.02154	0.145	0.27
Nettle	AU07	Appellent	Rinehart-a	0.489	0.02636	0.413	0.57
Gageler	AU07	Appellent	Rinehart-a	0.289	0.02143	0.231	0.36
Edelman	AU14	Appellent	Rinehart-a	0.408	0.02268	0.344	0.48
Kiefel	AU14	Appellent	Rinehart-a	0.594	0.02658	0.515	0.67
Nettle	AU14	Appellent	Rinehart-a	0.446	0.02603	0.372	0.52
Gageler	AU14	Appellent	Rinehart-a	0.593	0.02380	0.522	0.66
Edelman	AU15	Appellent	Rinehart-a	0.460	0.02336	0.393	0.53
Kiefel	AU15	Appellent	Rinehart-a	0.495	0.02753	0.416	0.57

Table A.5: *model result 3 for mean presence*

judge	AU	speaker	video	prob	SE	asymp.LCL	asymp.UCL
Nettle	AU15	Appellent	Rinehart-a	0.792	0.02005	0.727	0.84
Gageler	AU15	Appellent	Rinehart-a	0.647	0.02310	0.577	0.71
Edelman	AU20	Appellent	Rinehart-a	0.756	0.01931	0.695	0.81
Kiefel	AU20	Appellent	Rinehart-a	0.883	0.01488	0.833	0.92
Nettle	AU20	Appellent	Rinehart-a	0.732	0.02265	0.661	0.79
Gageler	AU20	Appellent	Rinehart-a	0.520	0.02485	0.448	0.59
Edelman	AU25	Appellent	Rinehart-a	0.298	0.02098	0.241	0.36
Kiefel	AU25	Appellent	Rinehart-a	0.925	0.01141	0.884	0.95
Nettle	AU25	Appellent	Rinehart-a	0.347	0.02449	0.279	0.42
Gageler	AU25	Appellent	Rinehart-a	0.466	0.02453	0.396	0.54
Edelman	AU01	Respondent	Rinehart-a	0.597	0.02177	0.532	0.66
Kiefel	AU01	Respondent	Rinehart-a	0.493	0.02553	0.419	0.57
Nettle	AU01	Respondent	Rinehart-a	0.696	0.02222	0.627	0.76
Gageler	AU01	Respondent	Rinehart-a	0.330	0.02152	0.271	0.40
Edelman	AU02	Respondent	Rinehart-a	0.927	0.01138	0.886	0.95
Kiefel	AU02	Respondent	Rinehart-a	0.935	0.01275	0.886	0.96
Nettle	AU02	Respondent	Rinehart-a	0.994	0.00334	0.969	1.00
Gageler	AU02	Respondent	Rinehart-a	0.823	0.01919	0.760	0.87
Edelman	AU05	Respondent	Rinehart-a	0.334	0.02089	0.276	0.40
Kiefel	AU05	Respondent	Rinehart-a	0.361	0.02427	0.294	0.43
Nettle	AU05	Respondent	Rinehart-a	0.264	0.02127	0.206	0.33
Gageler	AU05	Respondent	Rinehart-a	0.710	0.02048	0.647	0.77
Edelman	AU07	Respondent	Rinehart-a	0.378	0.02167	0.318	0.44
Kiefel	AU07	Respondent	Rinehart-a	0.157	0.01725	0.113	0.21
Nettle	AU07	Respondent	Rinehart-a	0.504	0.02459	0.433	0.58
Gageler	AU07	Respondent	Rinehart-a	0.284	0.02024	0.229	0.35
Edelman	AU14	Respondent	Rinehart-a	0.404	0.02156	0.343	0.47

Table A.5: *model result 3 for mean presence*

judge	AU	speaker	video	prob	SE	asymp.LCL	asymp.UCL
Kiefel	AU14	Respondent	Rinehart-a	0.521	0.02549	0.447	0.59
Nettle	AU14	Respondent	Rinehart-a	0.461	0.02440	0.391	0.53
Gageler	AU14	Respondent	Rinehart-a	0.587	0.02268	0.519	0.65
Edelman	AU15	Respondent	Rinehart-a	0.456	0.02225	0.392	0.52
Kiefel	AU15	Respondent	Rinehart-a	0.422	0.02506	0.351	0.50
Nettle	AU15	Respondent	Rinehart-a	0.802	0.01842	0.742	0.85
Gageler	AU15	Respondent	Rinehart-a	0.641	0.02212	0.574	0.70
Edelman	AU20	Respondent	Rinehart-a	0.752	0.01876	0.694	0.80
Kiefel	AU20	Respondent	Rinehart-a	0.849	0.01748	0.791	0.89
Nettle	AU20	Respondent	Rinehart-a	0.743	0.02084	0.678	0.80
Gageler	AU20	Respondent	Rinehart-a	0.514	0.02362	0.445	0.58
Edelman	AU25	Respondent	Rinehart-a	0.295	0.01999	0.240	0.36
Kiefel	AU25	Respondent	Rinehart-a	0.902	0.01395	0.853	0.94
Nettle	AU25	Respondent	Rinehart-a	0.360	0.02329	0.296	0.43
Gageler	AU25	Respondent	Rinehart-a	0.460	0.02323	0.393	0.53
Edelman	AU01	Appellent	Rinehart-b	0.696	0.05397	0.521	0.83
Nettle	AU01	Appellent	Rinehart-b	0.869	0.03206	0.745	0.94
Gageler	AU01	Appellent	Rinehart-b	0.297	0.05355	0.167	0.47
Edelman	AU02	Appellent	Rinehart-b	0.970	0.01409	0.888	0.99
Nettle	AU02	Appellent	Rinehart-b	0.999	0.00092	0.989	1.00
Gageler	AU02	Appellent	Rinehart-b	0.866	0.05077	0.644	0.96
Edelman	AU05	Appellent	Rinehart-b	0.273	0.04821	0.156	0.43
Nettle	AU05	Appellent	Rinehart-b	0.334	0.05464	0.197	0.51
Gageler	AU05	Appellent	Rinehart-b	0.504	0.05904	0.338	0.67
Edelman	AU07	Appellent	Rinehart-b	0.360	0.05653	0.215	0.53
Nettle	AU07	Appellent	Rinehart-b	0.637	0.05772	0.459	0.78
Gageler	AU07	Appellent	Rinehart-b	0.168	0.03648	0.086	0.30

Table A.5: *model result 3 for mean presence*

judge	AU	speaker	video	prob	SE	asymp.LCL	asymp.UCL
Edelman	AU14	Appellent	Rinehart-b	0.554	0.05790	0.385	0.71
Nettle	AU14	Appellent	Rinehart-b	0.745	0.04743	0.585	0.86
Gageler	AU14	Appellent	Rinehart-b	0.590	0.05700	0.420	0.74
Edelman	AU15	Appellent	Rinehart-b	0.388	0.05768	0.238	0.56
Nettle	AU15	Appellent	Rinehart-b	0.851	0.03432	0.722	0.93
Gageler	AU15	Appellent	Rinehart-b	0.428	0.05931	0.270	0.60
Edelman	AU20	Appellent	Rinehart-b	0.726	0.05051	0.558	0.85
Nettle	AU20	Appellent	Rinehart-b	0.825	0.03907	0.682	0.91
Gageler	AU20	Appellent	Rinehart-b	0.338	0.05592	0.198	0.51
Edelman	AU25	Appellent	Rinehart-b	0.405	0.05609	0.257	0.57
Nettle	AU25	Appellent	Rinehart-b	0.632	0.05580	0.460	0.78
Gageler	AU25	Appellent	Rinehart-b	0.434	0.05710	0.281	0.60
Edelman	AU01	Respondent	Rinehart-b	0.692	0.05474	0.516	0.83
Nettle	AU01	Respondent	Rinehart-b	0.875	0.03100	0.754	0.94
Gageler	AU01	Respondent	Rinehart-b	0.292	0.05345	0.162	0.47
Edelman	AU02	Respondent	Rinehart-b	0.969	0.01436	0.886	0.99
Nettle	AU02	Respondent	Rinehart-b	0.999	0.00087	0.990	1.00
Gageler	AU02	Respondent	Rinehart-b	0.863	0.05189	0.637	0.96
Edelman	AU05	Respondent	Rinehart-b	0.269	0.04818	0.153	0.43
Nettle	AU05	Respondent	Rinehart-b	0.347	0.05647	0.205	0.52
Gageler	AU05	Respondent	Rinehart-b	0.497	0.05964	0.330	0.66
Edelman	AU07	Respondent	Rinehart-b	0.355	0.05668	0.211	0.53
Nettle	AU07	Respondent	Rinehart-b	0.651	0.05752	0.471	0.80
Gageler	AU07	Respondent	Rinehart-b	0.165	0.03616	0.084	0.30
Edelman	AU14	Respondent	Rinehart-b	0.549	0.05850	0.380	0.71
Nettle	AU14	Respondent	Rinehart-b	0.756	0.04667	0.598	0.87
Gageler	AU14	Respondent	Rinehart-b	0.584	0.05785	0.412	0.74

Table A.5: *model result 3 for mean presence*

judge	AU	speaker	video	prob	SE	asymp.LCL	asymp.UCL
Edelman	AU15	Respondent	Rinehart-b	0.384	0.05789	0.234	0.56
Nettle	AU15	Respondent	Rinehart-b	0.859	0.03329	0.732	0.93
Gageler	AU15	Respondent	Rinehart-b	0.422	0.05965	0.263	0.60
Edelman	AU20	Respondent	Rinehart-b	0.722	0.05129	0.553	0.85
Nettle	AU20	Respondent	Rinehart-b	0.834	0.03802	0.693	0.92
Gageler	AU20	Respondent	Rinehart-b	0.332	0.05596	0.193	0.51
Edelman	AU25	Respondent	Rinehart-b	0.400	0.05637	0.252	0.57
Nettle	AU25	Respondent	Rinehart-b	0.646	0.05569	0.473	0.79
Gageler	AU25	Respondent	Rinehart-b	0.428	0.05750	0.274	0.60
Edelman	AU01	Appellent	McKell	0.428	0.03227	0.337	0.52
Keane	AU01	Appellent	McKell	0.060	0.01179	0.033	0.10
Gageler	AU01	Appellent	McKell	0.223	0.02531	0.158	0.31
Bell	AU01	Appellent	McKell	0.650	0.03379	0.547	0.74
Edelman	AU02	Appellent	McKell	0.942	0.01164	0.897	0.97
Keane	AU02	Appellent	McKell	0.678	0.03475	0.569	0.77
Gageler	AU02	Appellent	McKell	0.872	0.02215	0.793	0.92
Bell	AU02	Appellent	McKell	0.688	0.03406	0.581	0.78
Edelman	AU05	Appellent	McKell	0.293	0.02747	0.220	0.38
Keane	AU05	Appellent	McKell	0.548	0.03499	0.446	0.65
Gageler	AU05	Appellent	McKell	0.700	0.02890	0.610	0.78
Bell	AU05	Appellent	McKell	0.645	0.03265	0.545	0.73
Edelman	AU07	Appellent	McKell	0.429	0.03104	0.342	0.52
Keane	AU07	Appellent	McKell	0.658	0.03270	0.558	0.75
Gageler	AU07	Appellent	McKell	0.360	0.03105	0.275	0.45
Bell	AU07	Appellent	McKell	0.712	0.03027	0.617	0.79
Edelman	AU14	Appellent	McKell	0.456	0.03176	0.366	0.55
Keane	AU14	Appellent	McKell	0.708	0.03126	0.610	0.79

Table A.5: *model result 3 for mean presence*

judge	AU	speaker	video	prob	SE	asymp.LCL	asymp.UCL
Gageler	AU14	Appellent	McKell	0.669	0.03009	0.576	0.75
Bell	AU14	Appellent	McKell	0.178	0.02530	0.115	0.26
Edelman	AU15	Appellent	McKell	0.454	0.03231	0.362	0.55
Keane	AU15	Appellent	McKell	0.830	0.02519	0.744	0.89
Gageler	AU15	Appellent	McKell	0.671	0.03053	0.577	0.75
Bell	AU15	Appellent	McKell	0.872	0.02059	0.799	0.92
Edelman	AU20	Appellent	McKell	0.850	0.01959	0.783	0.90
Keane	AU20	Appellent	McKell	0.944	0.01242	0.895	0.97
Gageler	AU20	Appellent	McKell	0.694	0.03114	0.597	0.78
Bell	AU20	Appellent	McKell	0.770	0.02892	0.675	0.84
Edelman	AU25	Appellent	McKell	0.211	0.02371	0.150	0.29
Keane	AU25	Appellent	McKell	0.119	0.01942	0.073	0.19
Gageler	AU25	Appellent	McKell	0.385	0.03285	0.295	0.48
Bell	AU25	Appellent	McKell	0.807	0.02616	0.719	0.87
Edelman	AU01	Respondent	McKell	0.423	0.03308	0.331	0.52
Keane	AU01	Respondent	McKell	0.066	0.01342	0.037	0.12
Gageler	AU01	Respondent	McKell	0.219	0.02564	0.153	0.30
Bell	AU01	Respondent	McKell	0.684	0.03408	0.578	0.77
Edelman	AU02	Respondent	McKell	0.941	0.01195	0.895	0.97
Keane	AU02	Respondent	McKell	0.702	0.03534	0.590	0.79
Gageler	AU02	Respondent	McKell	0.869	0.02291	0.787	0.92
Bell	AU02	Respondent	McKell	0.720	0.03374	0.612	0.81
Edelman	AU05	Respondent	McKell	0.290	0.02802	0.215	0.38
Keane	AU05	Respondent	McKell	0.576	0.03705	0.467	0.68
Gageler	AU05	Respondent	McKell	0.695	0.03010	0.601	0.77
Bell	AU05	Respondent	McKell	0.679	0.03307	0.577	0.77
Edelman	AU07	Respondent	McKell	0.424	0.03189	0.335	0.52

Table A.5: *model result 3 for mean presence*

judge	AU	speaker	video	prob	SE	asymp.LCL	asymp.UCL
Keane	AU07	Respondent	McKell	0.684	0.03372	0.578	0.77
Gageler	AU07	Respondent	McKell	0.354	0.03183	0.268	0.45
Bell	AU07	Respondent	McKell	0.743	0.02996	0.647	0.82
Edelman	AU14	Respondent	McKell	0.451	0.03264	0.359	0.55
Keane	AU14	Respondent	McKell	0.732	0.03175	0.630	0.81
Gageler	AU14	Respondent	McKell	0.663	0.03131	0.567	0.75
Bell	AU14	Respondent	McKell	0.201	0.02889	0.130	0.30
Edelman	AU15	Respondent	McKell	0.449	0.03317	0.356	0.55
Keane	AU15	Respondent	McKell	0.845	0.02451	0.760	0.90
Gageler	AU15	Respondent	McKell	0.665	0.03174	0.567	0.75
Bell	AU15	Respondent	McKell	0.888	0.01912	0.819	0.93
Edelman	AU20	Respondent	McKell	0.847	0.02024	0.779	0.90
Keane	AU20	Respondent	McKell	0.950	0.01155	0.903	0.97
Gageler	AU20	Respondent	McKell	0.688	0.03231	0.587	0.77
Bell	AU20	Respondent	McKell	0.796	0.02786	0.703	0.87
Edelman	AU25	Respondent	McKell	0.208	0.02403	0.146	0.29
Keane	AU25	Respondent	McKell	0.131	0.02198	0.079	0.21
Gageler	AU25	Respondent	McKell	0.379	0.03366	0.287	0.48
Bell	AU25	Respondent	McKell	0.830	0.02492	0.745	0.89
Edelman	AU01	Appellent	OKS	0.578	0.05470	0.416	0.72
Keane	AU01	Appellent	OKS	0.165	0.03706	0.083	0.30
Gageler	AU01	Appellent	OKS	0.630	0.05296	0.467	0.77
Bell	AU01	Appellent	OKS	0.929	0.01860	0.852	0.97
Edelman	AU02	Appellent	OKS	0.954	0.01587	0.878	0.98
Keane	AU02	Appellent	OKS	0.820	0.04614	0.647	0.92
Gageler	AU02	Appellent	OKS	0.966	0.01204	0.907	0.99
Bell	AU02	Appellent	OKS	0.915	0.02647	0.800	0.97

Table A.5: *model result 3 for mean presence*

judge	AU	speaker	video	prob	SE	asymp.LCL	asymp.UCL
Edelman	AU05	Appellent	OKS	0.060	0.01440	0.029	0.12
Keane	AU05	Appellent	OKS	0.241	0.04431	0.135	0.39
Gageler	AU05	Appellent	OKS	0.537	0.05592	0.376	0.69
Bell	AU05	Appellent	OKS	0.518	0.05810	0.353	0.68
Edelman	AU07	Appellent	OKS	0.267	0.04382	0.160	0.41
Keane	AU07	Appellent	OKS	0.614	0.05422	0.450	0.76
Gageler	AU07	Appellent	OKS	0.469	0.05408	0.319	0.62
Bell	AU07	Appellent	OKS	0.822	0.03684	0.689	0.91
Edelman	AU14	Appellent	OKS	0.379	0.05207	0.243	0.54
Keane	AU14	Appellent	OKS	0.751	0.04512	0.599	0.86
Gageler	AU14	Appellent	OKS	0.826	0.03379	0.706	0.90
Bell	AU14	Appellent	OKS	0.377	0.05593	0.232	0.55
Edelman	AU15	Appellent	OKS	0.509	0.06159	0.336	0.68
Keane	AU15	Appellent	OKS	0.912	0.02473	0.809	0.96
Gageler	AU15	Appellent	OKS	0.892	0.02697	0.785	0.95
Bell	AU15	Appellent	OKS	0.970	0.00958	0.925	0.99
Edelman	AU20	Appellent	OKS	0.846	0.03810	0.701	0.93
Keane	AU20	Appellent	OKS	0.965	0.01216	0.906	0.99
Gageler	AU20	Appellent	OKS	0.877	0.03226	0.749	0.94
Bell	AU20	Appellent	OKS	0.926	0.02257	0.827	0.97
Edelman	AU25	Appellent	OKS	0.132	0.02960	0.066	0.24
Keane	AU25	Appellent	OKS	0.115	0.02883	0.054	0.23
Gageler	AU25	Appellent	OKS	0.535	0.05839	0.367	0.69
Bell	AU25	Appellent	OKS	0.901	0.02586	0.797	0.96
Edelman	AU01	Respondent	OKS	0.574	0.05492	0.412	0.72
Keane	AU01	Respondent	OKS	0.182	0.03996	0.092	0.33
Gageler	AU01	Respondent	OKS	0.624	0.05339	0.461	0.76

Table A.5: *model result 3 for mean presence*

judge	AU	speaker	video	prob	SE	asymp.LCL	asymp.UCL
Bell	AU01	Respondent	OKS	0.939	0.01635	0.870	0.97
Edelman	AU02	Respondent	OKS	0.953	0.01614	0.876	0.98
Keane	AU02	Respondent	OKS	0.836	0.04295	0.672	0.93
Gageler	AU02	Respondent	OKS	0.965	0.01234	0.905	0.99
Bell	AU02	Respondent	OKS	0.926	0.02333	0.823	0.97
Edelman	AU05	Respondent	OKS	0.059	0.01419	0.029	0.12
Keane	AU05	Respondent	OKS	0.262	0.04705	0.149	0.42
Gageler	AU05	Respondent	OKS	0.531	0.05610	0.370	0.69
Bell	AU05	Respondent	OKS	0.556	0.05772	0.388	0.71
Edelman	AU07	Respondent	OKS	0.264	0.04351	0.157	0.41
Keane	AU07	Respondent	OKS	0.641	0.05293	0.477	0.78
Gageler	AU07	Respondent	OKS	0.462	0.05408	0.313	0.62
Bell	AU07	Respondent	OKS	0.844	0.03343	0.721	0.92
Edelman	AU14	Respondent	OKS	0.375	0.05191	0.239	0.53
Keane	AU14	Respondent	OKS	0.772	0.04272	0.625	0.87
Gageler	AU14	Respondent	OKS	0.823	0.03441	0.700	0.90
Bell	AU14	Respondent	OKS	0.414	0.05786	0.261	0.59
Edelman	AU15	Respondent	OKS	0.505	0.06168	0.332	0.68
Keane	AU15	Respondent	OKS	0.921	0.02257	0.825	0.97
Gageler	AU15	Respondent	OKS	0.889	0.02755	0.780	0.95
Bell	AU15	Respondent	OKS	0.974	0.00831	0.935	0.99
Edelman	AU20	Respondent	OKS	0.844	0.03861	0.697	0.93
Keane	AU20	Respondent	OKS	0.969	0.01096	0.915	0.99
Gageler	AU20	Respondent	OKS	0.874	0.03292	0.744	0.94
Bell	AU20	Respondent	OKS	0.936	0.01982	0.848	0.97
Edelman	AU25	Respondent	OKS	0.129	0.02923	0.065	0.24
Keane	AU25	Respondent	OKS	0.127	0.03146	0.060	0.25

Table A.5: *model result 3 for mean presence*

judge	AU	speaker	video	prob	SE	asymp.LCL	asymp.UCL
Gageler	AU25	Respondent	OKS	0.528	0.05857	0.361	0.69
Bell	AU25	Respondent	OKS	0.914	0.02292	0.820	0.96
Edelman	AU01	Appellent	Parkes	0.604	0.02692	0.523	0.68
Keane	AU01	Appellent	Parkes	0.118	0.01889	0.073	0.18
Kiefel	AU01	Appellent	Parkes	0.499	0.03058	0.411	0.59
Bell	AU01	Appellent	Parkes	0.645	0.03102	0.551	0.73
Edelman	AU02	Appellent	Parkes	0.971	0.00636	0.945	0.98
Keane	AU02	Appellent	Parkes	0.817	0.02410	0.736	0.88
Kiefel	AU02	Appellent	Parkes	0.974	0.00676	0.945	0.99
Bell	AU02	Appellent	Parkes	0.685	0.03059	0.590	0.77
Edelman	AU05	Appellent	Parkes	0.295	0.02428	0.230	0.37
Keane	AU05	Appellent	Parkes	0.558	0.03241	0.463	0.65
Kiefel	AU05	Appellent	Parkes	0.320	0.02814	0.244	0.41
Bell	AU05	Appellent	Parkes	0.468	0.03200	0.377	0.56
Edelman	AU07	Appellent	Parkes	0.381	0.02707	0.306	0.46
Keane	AU07	Appellent	Parkes	0.620	0.03147	0.525	0.71
Kiefel	AU07	Appellent	Parkes	0.158	0.02038	0.107	0.23
Bell	AU07	Appellent	Parkes	0.494	0.03236	0.401	0.59
Edelman	AU14	Appellent	Parkes	0.413	0.02709	0.337	0.49
Keane	AU14	Appellent	Parkes	0.678	0.03016	0.585	0.76
Kiefel	AU14	Appellent	Parkes	0.529	0.03037	0.441	0.62
Bell	AU14	Appellent	Parkes	0.080	0.01335	0.049	0.13
Edelman	AU15	Appellent	Parkes	0.515	0.02802	0.433	0.60
Keane	AU15	Appellent	Parkes	0.865	0.02020	0.795	0.91
Kiefel	AU15	Appellent	Parkes	0.479	0.03060	0.392	0.57
Bell	AU15	Appellent	Parkes	0.806	0.02511	0.723	0.87
Edelman	AU20	Appellent	Parkes	0.744	0.02415	0.667	0.81

Table A.5: *model result 3 for mean presence*

judge	AU	speaker	video	prob	SE	asymp.LCL	asymp.UCL
Keane	AU20	Appellent	Parkes	0.899	0.01864	0.830	0.94
Kiefel	AU20	Appellent	Parkes	0.843	0.01982	0.776	0.89
Bell	AU20	Appellent	Parkes	0.452	0.03291	0.359	0.55
Edelman	AU25	Appellent	Parkes	0.281	0.02529	0.213	0.36
Keane	AU25	Appellent	Parkes	0.169	0.02272	0.112	0.25
Kiefel	AU25	Appellent	Parkes	0.895	0.01573	0.840	0.93
Bell	AU25	Appellent	Parkes	0.746	0.02788	0.656	0.82
Edelman	AU01	Respondent	Parkes	0.599	0.02614	0.521	0.67
Keane	AU01	Respondent	Parkes	0.130	0.01968	0.083	0.20
Kiefel	AU01	Respondent	Parkes	0.426	0.02826	0.346	0.51
Bell	AU01	Respondent	Parkes	0.680	0.02785	0.594	0.75
Edelman	AU02	Respondent	Parkes	0.970	0.00642	0.945	0.98
Keane	AU02	Respondent	Parkes	0.833	0.02139	0.761	0.89
Kiefel	AU02	Respondent	Parkes	0.965	0.00877	0.928	0.98
Bell	AU02	Respondent	Parkes	0.717	0.02732	0.631	0.79
Edelman	AU05	Respondent	Parkes	0.292	0.02339	0.228	0.36
Keane	AU05	Respondent	Parkes	0.586	0.02953	0.499	0.67
Kiefel	AU05	Respondent	Parkes	0.259	0.02382	0.196	0.33
Bell	AU05	Respondent	Parkes	0.506	0.02996	0.420	0.59
Edelman	AU07	Respondent	Parkes	0.377	0.02612	0.304	0.46
Keane	AU07	Respondent	Parkes	0.647	0.02843	0.560	0.72
Kiefel	AU07	Respondent	Parkes	0.123	0.01610	0.083	0.18
Bell	AU07	Respondent	Parkes	0.532	0.03015	0.444	0.62
Edelman	AU14	Respondent	Parkes	0.409	0.02612	0.335	0.49
Keane	AU14	Respondent	Parkes	0.703	0.02707	0.618	0.78
Kiefel	AU14	Respondent	Parkes	0.455	0.02852	0.374	0.54
Bell	AU14	Respondent	Parkes	0.092	0.01456	0.058	0.14

Table A.5: *model result 3 for mean presence*

judge	AU	speaker	video	prob	SE	asymp.LCL	asymp.UCL
Edelman	AU15	Respondent	Parkes	0.510	0.02712	0.431	0.59
Keane	AU15	Respondent	Parkes	0.878	0.01787	0.816	0.92
Kiefel	AU15	Respondent	Parkes	0.406	0.02803	0.328	0.49
Bell	AU15	Respondent	Parkes	0.829	0.02195	0.756	0.88
Edelman	AU20	Respondent	Parkes	0.740	0.02374	0.665	0.80
Keane	AU20	Respondent	Parkes	0.909	0.01656	0.848	0.95
Kiefel	AU20	Respondent	Parkes	0.799	0.02280	0.725	0.86
Bell	AU20	Respondent	Parkes	0.490	0.03114	0.401	0.58
Edelman	AU25	Respondent	Parkes	0.277	0.02444	0.212	0.35
Keane	AU25	Respondent	Parkes	0.185	0.02312	0.127	0.26
Kiefel	AU25	Respondent	Parkes	0.864	0.01891	0.799	0.91
Bell	AU25	Respondent	Parkes	0.774	0.02459	0.694	0.84

Table A.6: *model result 2 for mean intensity*

judge	video	AU	response	SE	asymp.LCL	asymp.UCL
Edelman	Nauru-a	AU01	0.66	0.0378	0.56	0.77
Nettle	Nauru-a	AU01	0.83	0.0468	0.71	0.97
Gageler	Nauru-a	AU01	0.53	0.0314	0.45	0.62
Edelman	Nauru-b	AU01	0.66	0.0444	0.55	0.79
Nettle	Nauru-b	AU01	0.82	0.0559	0.68	0.98
Gageler	Nauru-b	AU01	0.57	0.0412	0.47	0.69
Edelman	Rinehart-a	AU01	0.48	0.0214	0.43	0.54
Kiefel	Rinehart-a	AU01	0.27	0.0116	0.24	0.31
Nettle	Rinehart-a	AU01	0.65	0.0257	0.59	0.73
Gageler	Rinehart-a	AU01	0.43	0.0187	0.38	0.48

Table A.6: *model result 2 for mean intensity*

judge	video	AU	response	SE	asymp.LCL	asymp.UCL
Edelman	Rinehart-b	AU01	0.51	0.0539	0.38	0.68
Nettle	Rinehart-b	AU01	0.61	0.0602	0.47	0.80
Gageler	Rinehart-b	AU01	0.52	0.0556	0.39	0.69
Edelman	McKell	AU01	0.35	0.0226	0.29	0.42
Keane	McKell	AU01	0.32	0.0349	0.23	0.42
Gageler	McKell	AU01	0.32	0.0220	0.27	0.39
Bell	McKell	AU01	0.30	0.0192	0.26	0.36
Edelman	OKS	AU01	0.59	0.0555	0.45	0.76
Keane	OKS	AU01	0.58	0.0834	0.39	0.85
Gageler	OKS	AU01	0.82	0.0846	0.62	1.08
Bell	OKS	AU01	0.80	0.0861	0.60	1.07
Edelman	Parkes	AU01	0.48	0.0237	0.42	0.55
Keane	Parkes	AU01	0.35	0.0351	0.27	0.46
Kiefel	Parkes	AU01	0.21	0.0117	0.18	0.25
Bell	Parkes	AU01	0.32	0.0201	0.27	0.38
Edelman	Nauru-a	AU04	0.72	0.0372	0.62	0.82
Nettle	Nauru-a	AU04	0.61	0.0345	0.53	0.71
Gageler	Nauru-a	AU04	0.84	0.0436	0.73	0.96
Edelman	Nauru-b	AU04	0.70	0.0447	0.59	0.83
Nettle	Nauru-b	AU04	0.59	0.0406	0.49	0.71
Gageler	Nauru-b	AU04	0.88	0.0566	0.74	1.05
Edelman	Rinehart-a	AU04	0.42	0.0169	0.37	0.47
Kiefel	Rinehart-a	AU04	0.33	0.0145	0.29	0.37
Nettle	Rinehart-a	AU04	0.38	0.0155	0.34	0.43
Gageler	Rinehart-a	AU04	0.54	0.0203	0.49	0.59
Edelman	Rinehart-b	AU04	0.77	0.0823	0.58	1.03
Nettle	Rinehart-b	AU04	0.63	0.0602	0.49	0.81

Table A.6: *model result 2 for mean intensity*

judge	video	AU	response	SE	asymp.LCL	asymp.UCL
Gageler	Rinehart-b	AU04	1.14	0.1110	0.88	1.48
Edelman	McKell	AU04	0.42	0.0226	0.36	0.48
Keane	McKell	AU04	0.55	0.0325	0.47	0.65
Gageler	McKell	AU04	0.55	0.0290	0.48	0.64
Bell	McKell	AU04	0.81	0.0426	0.70	0.93
Edelman	OKS	AU04	0.31	0.0251	0.25	0.39
Keane	OKS	AU04	0.46	0.0418	0.36	0.59
Gageler	OKS	AU04	0.64	0.0510	0.52	0.79
Bell	OKS	AU04	0.96	0.0784	0.77	1.20
Edelman	Parkes	AU04	0.45	0.0204	0.40	0.51
Keane	Parkes	AU04	0.48	0.0258	0.42	0.56
Kiefel	Parkes	AU04	0.28	0.0130	0.24	0.31
Bell	Parkes	AU04	0.66	0.0292	0.59	0.74
Edelman	Nauru-a	AU05	0.50	0.0328	0.42	0.60
Nettle	Nauru-a	AU05	0.71	0.0443	0.60	0.84
Gageler	Nauru-a	AU05	0.94	0.0574	0.79	1.10
Edelman	Nauru-b	AU05	0.55	0.0407	0.45	0.67
Nettle	Nauru-b	AU05	0.75	0.0558	0.62	0.92
Gageler	Nauru-b	AU05	1.10	0.0768	0.91	1.32
Edelman	Rinehart-a	AU05	0.42	0.0196	0.37	0.48
Kiefel	Rinehart-a	AU05	0.37	0.0215	0.31	0.43
Nettle	Rinehart-a	AU05	0.64	0.0289	0.56	0.72
Gageler	Rinehart-a	AU05	0.87	0.0336	0.78	0.96
Edelman	Rinehart-b	AU05	0.35	0.0398	0.25	0.47
Nettle	Rinehart-b	AU05	0.46	0.0506	0.34	0.62
Gageler	Rinehart-b	AU05	0.81	0.0849	0.61	1.08
Edelman	McKell	AU05	0.41	0.0274	0.34	0.49

Table A.6: *model result 2 for mean intensity*

judge	video	AU	response	SE	asymp.LCL	asymp.UCL
Keane	McKell	AU05	0.72	0.0520	0.59	0.88
Gageler	McKell	AU05	0.87	0.0499	0.75	1.02
Bell	McKell	AU05	0.38	0.0247	0.32	0.46
Edelman	OKS	AU05	0.67	0.0844	0.47	0.94
Keane	OKS	AU05	1.28	0.1382	0.96	1.71
Gageler	OKS	AU05	2.16	0.2766	1.53	3.05
Bell	OKS	AU05	0.97	0.0964	0.75	1.27
Edelman	Parkes	AU05	0.39	0.0206	0.34	0.45
Keane	Parkes	AU05	0.56	0.0312	0.48	0.65
Kiefel	Parkes	AU05	0.27	0.0130	0.23	0.30
Bell	Parkes	AU05	0.28	0.0171	0.23	0.33
Edelman	Nauru-a	AU07	1.07	0.0718	0.89	1.28
Nettle	Nauru-a	AU07	1.06	0.0666	0.90	1.26
Gageler	Nauru-a	AU07	0.85	0.0547	0.71	1.01
Edelman	Nauru-b	AU07	0.83	0.0683	0.66	1.03
Nettle	Nauru-b	AU07	0.81	0.0601	0.66	0.98
Gageler	Nauru-b	AU07	0.71	0.0548	0.57	0.87
Edelman	Rinehart-a	AU07	0.63	0.0264	0.56	0.70
Kiefel	Rinehart-a	AU07	0.50	0.0316	0.43	0.60
Nettle	Rinehart-a	AU07	0.67	0.0284	0.60	0.75
Gageler	Rinehart-a	AU07	0.55	0.0257	0.48	0.62
Edelman	Rinehart-b	AU07	0.67	0.0667	0.51	0.87
Nettle	Rinehart-b	AU07	0.63	0.0616	0.48	0.82
Gageler	Rinehart-b	AU07	0.67	0.0712	0.50	0.89
Edelman	McKell	AU07	0.63	0.0355	0.55	0.74
Keane	McKell	AU07	1.23	0.0699	1.05	1.43
Gageler	McKell	AU07	0.57	0.0348	0.49	0.67

Table A.6: *model result 2 for mean intensity*

judge	video	AU	response	SE	asymp.LCL	asymp.UCL
Bell	McKell	AU07	1.01	0.0563	0.87	1.18
Edelman	OKS	AU07	0.36	0.0304	0.29	0.45
Keane	OKS	AU07	0.76	0.0673	0.60	0.97
Gageler	OKS	AU07	0.50	0.0468	0.39	0.64
Bell	OKS	AU07	0.90	0.0863	0.69	1.16
Edelman	Parkes	AU07	0.51	0.0240	0.45	0.58
Keane	Parkes	AU07	0.81	0.0409	0.70	0.92
Kiefel	Parkes	AU07	0.32	0.0251	0.26	0.40
Bell	Parkes	AU07	0.62	0.0342	0.53	0.72
Edelman	Nauru-a	AU09	0.63	0.0332	0.54	0.72
Nettle	Nauru-a	AU09	0.83	0.0445	0.72	0.96
Gageler	Nauru-a	AU09	0.66	0.0336	0.57	0.75
Edelman	Nauru-b	AU09	0.60	0.0399	0.50	0.72
Nettle	Nauru-b	AU09	0.78	0.0495	0.66	0.93
Gageler	Nauru-b	AU09	0.68	0.0411	0.58	0.80
Edelman	Rinehart-a	AU09	0.34	0.0141	0.30	0.38
Kiefel	Rinehart-a	AU09	0.17	0.0149	0.13	0.21
Nettle	Rinehart-a	AU09	0.48	0.0188	0.43	0.53
Gageler	Rinehart-a	AU09	0.39	0.0160	0.35	0.43
Edelman	Rinehart-b	AU09	0.42	0.0476	0.31	0.57
Nettle	Rinehart-b	AU09	0.53	0.0567	0.40	0.71
Gageler	Rinehart-b	AU09	0.56	0.0637	0.41	0.76
Edelman	McKell	AU09	0.28	0.0153	0.24	0.33
Keane	McKell	AU09	0.52	0.0319	0.44	0.62
Gageler	McKell	AU09	0.34	0.0202	0.29	0.39
Bell	McKell	AU09	0.71	0.0398	0.61	0.82
Edelman	OKS	AU09	0.22	0.0185	0.18	0.28

Table A.6: *model result 2 for mean intensity*

judge	video	AU	response	SE	asymp.LCL	asymp.UCL
Keane	OKS	AU09	0.46	0.0405	0.36	0.58
Gageler	OKS	AU09	0.41	0.0333	0.33	0.51
Bell	OKS	AU09	0.88	0.0725	0.71	1.10
Edelman	Parkes	AU09	0.37	0.0175	0.33	0.42
Keane	Parkes	AU09	0.56	0.0321	0.48	0.65
Kiefel	Parkes	AU09	0.15	0.0123	0.12	0.18
Bell	Parkes	AU09	0.71	0.0317	0.63	0.80
Edelman	Nauru-a	AU14	0.59	0.0341	0.50	0.69
Nettle	Nauru-a	AU14	0.66	0.0405	0.56	0.78
Gageler	Nauru-a	AU14	0.44	0.0262	0.38	0.52
Edelman	Nauru-b	AU14	0.72	0.0493	0.60	0.86
Nettle	Nauru-b	AU14	0.79	0.0535	0.66	0.95
Gageler	Nauru-b	AU14	0.58	0.0417	0.48	0.70
Edelman	Rinehart-a	AU14	0.40	0.0157	0.36	0.44
Kiefel	Rinehart-a	AU14	0.44	0.0189	0.39	0.49
Nettle	Rinehart-a	AU14	0.48	0.0198	0.43	0.54
Gageler	Rinehart-a	AU14	0.33	0.0163	0.29	0.38
Edelman	Rinehart-b	AU14	0.47	0.0480	0.36	0.62
Nettle	Rinehart-b	AU14	0.51	0.0483	0.39	0.65
Gageler	Rinehart-b	AU14	0.45	0.0454	0.34	0.59
Edelman	McKell	AU14	0.42	0.0263	0.35	0.49
Keane	McKell	AU14	0.67	0.0410	0.57	0.79
Gageler	McKell	AU14	0.36	0.0256	0.29	0.43
Bell	McKell	AU14	0.16	0.0164	0.12	0.21
Edelman	OKS	AU14	0.48	0.0431	0.38	0.61
Keane	OKS	AU14	0.85	0.0819	0.66	1.10
Gageler	OKS	AU14	0.63	0.0556	0.50	0.80

Table A.6: *model result 2 for mean intensity*

judge	video	AU	response	SE	asymp.LCL	asymp.UCL
Bell	OKS	AU14	0.28	0.0341	0.20	0.39
Edelman	Parkes	AU14	0.51	0.0235	0.45	0.58
Keane	Parkes	AU14	0.66	0.0337	0.58	0.76
Kiefel	Parkes	AU14	0.43	0.0200	0.38	0.49
Bell	Parkes	AU14	0.14	0.0174	0.10	0.20
Edelman	Nauru-a	AU15	0.25	0.0159	0.21	0.30
Nettle	Nauru-a	AU15	0.48	0.0285	0.41	0.57
Gageler	Nauru-a	AU15	0.23	0.0155	0.19	0.28
Edelman	Nauru-b	AU15	0.34	0.0250	0.28	0.41
Nettle	Nauru-b	AU15	0.63	0.0439	0.52	0.76
Gageler	Nauru-b	AU15	0.33	0.0241	0.27	0.40
Edelman	Rinehart-a	AU15	0.25	0.0103	0.23	0.28
Kiefel	Rinehart-a	AU15	0.19	0.0083	0.17	0.22
Nettle	Rinehart-a	AU15	0.52	0.0202	0.47	0.58
Gageler	Rinehart-a	AU15	0.25	0.0103	0.23	0.28
Edelman	Rinehart-b	AU15	0.17	0.0200	0.12	0.23
Nettle	Rinehart-b	AU15	0.31	0.0314	0.23	0.41
Gageler	Rinehart-b	AU15	0.20	0.0219	0.14	0.26
Edelman	McKell	AU15	0.26	0.0150	0.23	0.31
Keane	McKell	AU15	0.59	0.0320	0.51	0.69
Gageler	McKell	AU15	0.27	0.0163	0.23	0.32
Bell	McKell	AU15	0.55	0.0299	0.47	0.64
Edelman	OKS	AU15	0.29	0.0238	0.23	0.36
Keane	OKS	AU15	0.71	0.0599	0.57	0.89
Gageler	OKS	AU15	0.46	0.0379	0.37	0.57
Bell	OKS	AU15	0.94	0.0935	0.72	1.23
Edelman	Parkes	AU15	0.47	0.0222	0.41	0.53

Table A.6: *model result 2 for mean intensity*

judge	video	AU	response	SE	asymp.LCL	asymp.UCL
Keane	Parkes	AU15	0.85	0.0384	0.75	0.96
Kiefel	Parkes	AU15	0.28	0.0138	0.24	0.32
Bell	Parkes	AU15	0.73	0.0364	0.64	0.84
Edelman	Nauru-a	AU20	0.94	0.0501	0.81	1.08
Nettle	Nauru-a	AU20	0.86	0.0454	0.75	0.99
Gageler	Nauru-a	AU20	0.62	0.0328	0.54	0.71
Edelman	Nauru-b	AU20	1.02	0.0629	0.86	1.20
Nettle	Nauru-b	AU20	0.92	0.0554	0.78	1.08
Gageler	Nauru-b	AU20	0.73	0.0450	0.61	0.86
Edelman	Rinehart-a	AU20	0.70	0.0244	0.64	0.77
Kiefel	Rinehart-a	AU20	0.82	0.0309	0.75	0.91
Nettle	Rinehart-a	AU20	0.69	0.0266	0.62	0.77
Gageler	Rinehart-a	AU20	0.51	0.0185	0.46	0.56
Edelman	Rinehart-b	AU20	0.67	0.0732	0.50	0.90
Nettle	Rinehart-b	AU20	0.59	0.0764	0.42	0.83
Gageler	Rinehart-b	AU20	0.56	0.0663	0.41	0.77
Edelman	McKell	AU20	0.90	0.0454	0.79	1.03
Keane	McKell	AU20	1.06	0.0554	0.92	1.22
Gageler	McKell	AU20	0.68	0.0362	0.59	0.78
Bell	McKell	AU20	0.40	0.0216	0.35	0.47
Edelman	OKS	AU20	0.89	0.0711	0.72	1.11
Keane	OKS	AU20	1.16	0.0928	0.94	1.44
Gageler	OKS	AU20	1.03	0.0814	0.84	1.28
Bell	OKS	AU20	0.63	0.0507	0.51	0.78
Edelman	Parkes	AU20	0.95	0.0392	0.85	1.06
Keane	Parkes	AU20	0.91	0.0400	0.81	1.02
Kiefel	Parkes	AU20	0.88	0.0374	0.78	0.98

Table A.6: *model result 2 for mean intensity*

judge	video	AU	response	SE	asymp.LCL	asymp.UCL
Bell	Parkes	AU20	0.32	0.0156	0.28	0.37
Edelman	Nauru-a	AU45	0.40	0.0216	0.34	0.46
Nettle	Nauru-a	AU45	0.22	0.0137	0.19	0.26
Gageler	Nauru-a	AU45	0.51	0.0275	0.44	0.59
Edelman	Nauru-b	AU45	0.36	0.0228	0.30	0.43
Nettle	Nauru-b	AU45	0.20	0.0144	0.16	0.24
Gageler	Nauru-b	AU45	0.49	0.0333	0.41	0.59
Edelman	Rinehart-a	AU45	0.28	0.0106	0.25	0.31
Kiefel	Rinehart-a	AU45	0.91	0.0344	0.82	1.01
Nettle	Rinehart-a	AU45	0.17	0.0084	0.15	0.19
Gageler	Rinehart-a	AU45	0.39	0.0150	0.35	0.44
Edelman	Rinehart-b	AU45	0.20	0.0226	0.15	0.28
Nettle	Rinehart-b	AU45	0.11	0.0129	0.08	0.15
Gageler	Rinehart-b	AU45	0.33	0.0340	0.25	0.44
Edelman	McKell	AU45	0.33	0.0176	0.28	0.38
Keane	McKell	AU45	0.58	0.0323	0.50	0.67
Gageler	McKell	AU45	0.47	0.0251	0.41	0.55
Bell	McKell	AU45	0.32	0.0172	0.28	0.37
Edelman	OKS	AU45	0.20	0.0161	0.16	0.24
Keane	OKS	AU45	0.38	0.0345	0.30	0.49
Gageler	OKS	AU45	0.44	0.0352	0.35	0.54
Bell	OKS	AU45	0.30	0.0255	0.24	0.38
Edelman	Parkes	AU45	0.36	0.0154	0.32	0.41
Keane	Parkes	AU45	0.52	0.0248	0.46	0.59
Kiefel	Parkes	AU45	0.92	0.0397	0.82	1.04
Bell	Parkes	AU45	0.27	0.0140	0.23	0.31

Table A.7: *model result 3 for mean intensity*

judge	video	AU	speaker	response	SE	asymp.LCL	asymp.UCL
Edelman	Nauru-a	AU01	Appellent	0.67	0.0389	0.566	0.79
Nettle	Nauru-a	AU01	Appellent	0.87	0.0499	0.740	1.03
Gageler	Nauru-a	AU01	Appellent	0.52	0.0315	0.437	0.62
Edelman	Nauru-b	AU01	Appellent	0.67	0.0446	0.548	0.81
Nettle	Nauru-b	AU01	Appellent	0.83	0.0568	0.681	1.01
Gageler	Nauru-b	AU01	Appellent	0.56	0.0407	0.458	0.70
Edelman	Rinehart-a	AU01	Appellent	0.50	0.0234	0.438	0.58
Kiefel	Rinehart-a	AU01	Appellent	0.32	0.0146	0.276	0.36
Nettle	Rinehart-a	AU01	Appellent	0.71	0.0300	0.629	0.80
Gageler	Rinehart-a	AU01	Appellent	0.43	0.0198	0.371	0.49
Edelman	Rinehart-b	AU01	Appellent	0.52	0.0548	0.380	0.70
Nettle	Rinehart-b	AU01	Appellent	0.64	0.0630	0.479	0.85
Gageler	Rinehart-b	AU01	Appellent	0.51	0.0552	0.375	0.70
Edelman	McKell	AU01	Appellent	0.37	0.0238	0.303	0.44
Keane	McKell	AU01	Appellent	0.33	0.0370	0.241	0.46
Gageler	McKell	AU01	Appellent	0.32	0.0225	0.265	0.40
Bell	McKell	AU01	Appellent	0.33	0.0206	0.271	0.39
Edelman	OKS	AU01	Appellent	0.60	0.0571	0.454	0.79
Keane	OKS	AU01	Appellent	0.59	0.0851	0.385	0.90
Gageler	OKS	AU01	Appellent	0.82	0.0853	0.603	1.11
Bell	OKS	AU01	Appellent	0.90	0.0979	0.651	1.23
Edelman	Parkes	AU01	Appellent	0.48	0.0242	0.410	0.55
Keane	Parkes	AU01	Appellent	0.33	0.0339	0.249	0.45
Kiefel	Parkes	AU01	Appellent	0.23	0.0131	0.194	0.27
Bell	Parkes	AU01	Appellent	0.33	0.0215	0.276	0.40
Edelman	Nauru-a	AU04	Appellent	0.72	0.0381	0.622	0.84
Nettle	Nauru-a	AU04	Appellent	0.64	0.0365	0.543	0.76

Table A.7: *model result 3 for mean intensity*

judge	video	AU	speaker	response	SE	asymp.LCL	asymp.UCL
Gageler	Nauru-a	AU04	Appellent	0.83	0.0441	0.711	0.97
Edelman	Nauru-b	AU04	Appellent	0.71	0.0450	0.588	0.85
Nettle	Nauru-b	AU04	Appellent	0.60	0.0413	0.491	0.73
Gageler	Nauru-b	AU04	Appellent	0.88	0.0567	0.733	1.07
Edelman	Rinehart-a	AU04	Appellent	0.43	0.0182	0.377	0.48
Kiefel	Rinehart-a	AU04	Appellent	0.37	0.0175	0.320	0.42
Nettle	Rinehart-a	AU04	Appellent	0.41	0.0177	0.361	0.46
Gageler	Rinehart-a	AU04	Appellent	0.53	0.0216	0.473	0.60
Edelman	Rinehart-b	AU04	Appellent	0.77	0.0829	0.567	1.06
Nettle	Rinehart-b	AU04	Appellent	0.65	0.0622	0.490	0.86
Gageler	Rinehart-b	AU04	Appellent	1.13	0.1104	0.851	1.50
Edelman	McKell	AU04	Appellent	0.42	0.0233	0.362	0.50
Keane	McKell	AU04	Appellent	0.54	0.0326	0.457	0.65
Gageler	McKell	AU04	Appellent	0.55	0.0294	0.475	0.65
Bell	McKell	AU04	Appellent	0.82	0.0436	0.699	0.95
Edelman	OKS	AU04	Appellent	0.32	0.0256	0.252	0.40
Keane	OKS	AU04	Appellent	0.44	0.0408	0.336	0.58
Gageler	OKS	AU04	Appellent	0.64	0.0516	0.507	0.81
Bell	OKS	AU04	Appellent	1.03	0.0861	0.806	1.31
Edelman	Parkes	AU04	Appellent	0.46	0.0215	0.398	0.52
Keane	Parkes	AU04	Appellent	0.45	0.0258	0.384	0.54
Kiefel	Parkes	AU04	Appellent	0.30	0.0151	0.261	0.35
Bell	Parkes	AU04	Appellent	0.69	0.0343	0.598	0.80
Edelman	Nauru-a	AU05	Appellent	0.51	0.0333	0.420	0.62
Nettle	Nauru-a	AU05	Appellent	0.74	0.0474	0.617	0.89
Gageler	Nauru-a	AU05	Appellent	0.92	0.0574	0.770	1.11
Edelman	Nauru-b	AU05	Appellent	0.55	0.0408	0.443	0.68

Table A.7: *model result 3 for mean intensity*

judge	video	AU	speaker	response	SE	asymp.LCL	asymp.UCL
Nettle	Nauru-b	AU05	Appellent	0.77	0.0571	0.620	0.96
Gageler	Nauru-b	AU05	Appellent	1.09	0.0764	0.888	1.34
Edelman	Rinehart-a	AU05	Appellent	0.44	0.0210	0.379	0.50
Kiefel	Rinehart-a	AU05	Appellent	0.41	0.0249	0.344	0.49
Nettle	Rinehart-a	AU05	Appellent	0.69	0.0340	0.600	0.80
Gageler	Rinehart-a	AU05	Appellent	0.86	0.0357	0.764	0.97
Edelman	Rinehart-b	AU05	Appellent	0.34	0.0395	0.244	0.48
Nettle	Rinehart-b	AU05	Appellent	0.47	0.0520	0.342	0.65
Gageler	Rinehart-b	AU05	Appellent	0.79	0.0830	0.583	1.07
Edelman	McKell	AU05	Appellent	0.42	0.0281	0.346	0.51
Keane	McKell	AU05	Appellent	0.71	0.0514	0.571	0.87
Gageler	McKell	AU05	Appellent	0.87	0.0503	0.736	1.03
Bell	McKell	AU05	Appellent	0.39	0.0250	0.321	0.47
Edelman	OKS	AU05	Appellent	0.67	0.0846	0.461	0.96
Keane	OKS	AU05	Appellent	1.21	0.1312	0.878	1.66
Gageler	OKS	AU05	Appellent	2.12	0.2729	1.460	3.09
Bell	OKS	AU05	Appellent	1.03	0.1031	0.769	1.38
Edelman	Parkes	AU05	Appellent	0.40	0.0218	0.342	0.47
Keane	Parkes	AU05	Appellent	0.52	0.0308	0.439	0.62
Kiefel	Parkes	AU05	Appellent	0.29	0.0150	0.248	0.34
Bell	Parkes	AU05	Appellent	0.29	0.0184	0.241	0.35
Edelman	Nauru-a	AU07	Appellent	1.07	0.0724	0.878	1.30
Nettle	Nauru-a	AU07	Appellent	1.12	0.0715	0.931	1.35
Gageler	Nauru-a	AU07	Appellent	0.85	0.0551	0.699	1.02
Edelman	Nauru-b	AU07	Appellent	0.82	0.0678	0.645	1.04
Nettle	Nauru-b	AU07	Appellent	0.82	0.0615	0.663	1.02
Gageler	Nauru-b	AU07	Appellent	0.71	0.0548	0.564	0.89

Table A.7: *model result 3 for mean intensity*

judge	video	AU	speaker	response	SE	asymp.LCL	asymp.UCL
Edelman	Rinehart-a	AU07	Appellent	0.63	0.0278	0.557	0.72
Kiefel	Rinehart-a	AU07	Appellent	0.51	0.0324	0.428	0.62
Nettle	Rinehart-a	AU07	Appellent	0.72	0.0326	0.632	0.82
Gageler	Rinehart-a	AU07	Appellent	0.54	0.0265	0.473	0.63
Edelman	Rinehart-b	AU07	Appellent	0.67	0.0673	0.500	0.90
Nettle	Rinehart-b	AU07	Appellent	0.66	0.0651	0.499	0.88
Gageler	Rinehart-b	AU07	Appellent	0.67	0.0719	0.495	0.92
Edelman	McKell	AU07	Appellent	0.63	0.0357	0.537	0.75
Keane	McKell	AU07	Appellent	1.17	0.0678	0.986	1.38
Gageler	McKell	AU07	Appellent	0.57	0.0348	0.477	0.68
Bell	McKell	AU07	Appellent	1.11	0.0640	0.938	1.31
Edelman	OKS	AU07	Appellent	0.36	0.0311	0.284	0.47
Keane	OKS	AU07	Appellent	0.72	0.0650	0.557	0.94
Gageler	OKS	AU07	Appellent	0.50	0.0481	0.382	0.67
Bell	OKS	AU07	Appellent	1.07	0.1077	0.800	1.44
Edelman	Parkes	AU07	Appellent	0.54	0.0261	0.465	0.62
Keane	Parkes	AU07	Appellent	0.77	0.0419	0.654	0.90
Kiefel	Parkes	AU07	Appellent	0.33	0.0263	0.265	0.42
Bell	Parkes	AU07	Appellent	0.74	0.0470	0.616	0.89
Edelman	Nauru-a	AU09	Appellent	0.63	0.0340	0.541	0.74
Nettle	Nauru-a	AU09	Appellent	0.87	0.0475	0.745	1.02
Gageler	Nauru-a	AU09	Appellent	0.65	0.0341	0.562	0.76
Edelman	Nauru-b	AU09	Appellent	0.60	0.0401	0.496	0.73
Nettle	Nauru-b	AU09	Appellent	0.80	0.0504	0.661	0.96
Gageler	Nauru-b	AU09	Appellent	0.68	0.0412	0.568	0.81
Edelman	Rinehart-a	AU09	Appellent	0.34	0.0151	0.301	0.39
Kiefel	Rinehart-a	AU09	Appellent	0.19	0.0172	0.148	0.25

Table A.7: *model result 3 for mean intensity*

judge	video	AU	speaker	response	SE	asymp.LCL	asymp.UCL
Nettle	Rinehart-a	AU09	Appellent	0.51	0.0219	0.453	0.58
Gageler	Rinehart-a	AU09	Appellent	0.39	0.0170	0.339	0.44
Edelman	Rinehart-b	AU09	Appellent	0.43	0.0485	0.307	0.59
Nettle	Rinehart-b	AU09	Appellent	0.56	0.0596	0.408	0.76
Gageler	Rinehart-b	AU09	Appellent	0.56	0.0643	0.404	0.79
Edelman	McKell	AU09	Appellent	0.28	0.0153	0.239	0.33
Keane	McKell	AU09	Appellent	0.50	0.0310	0.417	0.60
Gageler	McKell	AU09	Appellent	0.33	0.0199	0.276	0.39
Bell	McKell	AU09	Appellent	0.76	0.0430	0.643	0.90
Edelman	OKS	AU09	Appellent	0.22	0.0187	0.176	0.29
Keane	OKS	AU09	Appellent	0.43	0.0389	0.332	0.56
Gageler	OKS	AU09	Appellent	0.41	0.0334	0.320	0.52
Bell	OKS	AU09	Appellent	1.02	0.0859	0.800	1.31
Edelman	Parkes	AU09	Appellent	0.38	0.0186	0.330	0.44
Keane	Parkes	AU09	Appellent	0.53	0.0320	0.441	0.63
Kiefel	Parkes	AU09	Appellent	0.16	0.0140	0.127	0.21
Bell	Parkes	AU09	Appellent	0.81	0.0405	0.703	0.94
Edelman	Nauru-a	AU14	Appellent	0.60	0.0353	0.505	0.71
Nettle	Nauru-a	AU14	Appellent	0.69	0.0425	0.574	0.82
Gageler	Nauru-a	AU14	Appellent	0.44	0.0266	0.369	0.52
Edelman	Nauru-b	AU14	Appellent	0.72	0.0499	0.592	0.89
Nettle	Nauru-b	AU14	Appellent	0.80	0.0537	0.654	0.97
Gageler	Nauru-b	AU14	Appellent	0.58	0.0418	0.470	0.71
Edelman	Rinehart-a	AU14	Appellent	0.41	0.0170	0.359	0.46
Kiefel	Rinehart-a	AU14	Appellent	0.48	0.0223	0.424	0.55
Nettle	Rinehart-a	AU14	Appellent	0.51	0.0222	0.445	0.57
Gageler	Rinehart-a	AU14	Appellent	0.32	0.0169	0.278	0.38

Table A.7: *model result 3 for mean intensity*

judge	video	AU	speaker	response	SE	asymp.LCL	asymp.UCL
Edelman	Rinehart-b	AU14	Appellent	0.48	0.0491	0.356	0.65
Nettle	Rinehart-b	AU14	Appellent	0.52	0.0499	0.393	0.69
Gageler	Rinehart-b	AU14	Appellent	0.45	0.0457	0.333	0.60
Edelman	McKell	AU14	Appellent	0.42	0.0265	0.347	0.50
Keane	McKell	AU14	Appellent	0.65	0.0403	0.541	0.78
Gageler	McKell	AU14	Appellent	0.35	0.0253	0.282	0.43
Bell	McKell	AU14	Appellent	0.17	0.0178	0.123	0.23
Edelman	OKS	AU14	Appellent	0.49	0.0444	0.380	0.64
Keane	OKS	AU14	Appellent	0.83	0.0806	0.623	1.10
Gageler	OKS	AU14	Appellent	0.64	0.0565	0.491	0.82
Bell	OKS	AU14	Appellent	0.33	0.0410	0.233	0.48
Edelman	Parkes	AU14	Appellent	0.52	0.0249	0.448	0.59
Keane	Parkes	AU14	Appellent	0.62	0.0341	0.529	0.73
Kiefel	Parkes	AU14	Appellent	0.47	0.0232	0.409	0.54
Bell	Parkes	AU14	Appellent	0.16	0.0202	0.114	0.23
Edelman	Nauru-a	AU15	Appellent	0.26	0.0162	0.213	0.31
Nettle	Nauru-a	AU15	Appellent	0.51	0.0303	0.425	0.60
Gageler	Nauru-a	AU15	Appellent	0.23	0.0157	0.188	0.28
Edelman	Nauru-b	AU15	Appellent	0.34	0.0250	0.272	0.42
Nettle	Nauru-b	AU15	Appellent	0.64	0.0444	0.523	0.78
Gageler	Nauru-b	AU15	Appellent	0.33	0.0241	0.267	0.41
Edelman	Rinehart-a	AU15	Appellent	0.26	0.0111	0.228	0.29
Kiefel	Rinehart-a	AU15	Appellent	0.23	0.0105	0.197	0.26
Nettle	Rinehart-a	AU15	Appellent	0.55	0.0233	0.490	0.63
Gageler	Rinehart-a	AU15	Appellent	0.25	0.0109	0.222	0.29
Edelman	Rinehart-b	AU15	Appellent	0.17	0.0205	0.123	0.24
Nettle	Rinehart-b	AU15	Appellent	0.32	0.0330	0.241	0.44

Table A.7: *model result 3 for mean intensity*

judge	video	AU	speaker	response	SE	asymp.LCL	asymp.UCL
Gageler	Rinehart-b	AU15	Appellent	0.20	0.0222	0.143	0.27
Edelman	McKell	AU15	Appellent	0.26	0.0151	0.224	0.31
Keane	McKell	AU15	Appellent	0.58	0.0317	0.491	0.68
Gageler	McKell	AU15	Appellent	0.27	0.0163	0.227	0.32
Bell	McKell	AU15	Appellent	0.62	0.0346	0.523	0.73
Edelman	OKS	AU15	Appellent	0.29	0.0242	0.229	0.37
Keane	OKS	AU15	Appellent	0.68	0.0587	0.534	0.88
Gageler	OKS	AU15	Appellent	0.46	0.0384	0.360	0.59
Bell	OKS	AU15	Appellent	1.14	0.1175	0.846	1.54
Edelman	Parkes	AU15	Appellent	0.47	0.0235	0.410	0.55
Keane	Parkes	AU15	Appellent	0.80	0.0398	0.692	0.93
Kiefel	Parkes	AU15	Appellent	0.32	0.0168	0.272	0.37
Bell	Parkes	AU15	Appellent	0.87	0.0499	0.737	1.03
Edelman	Nauru-a	AU20	Appellent	0.95	0.0514	0.810	1.11
Nettle	Nauru-a	AU20	Appellent	0.91	0.0488	0.777	1.06
Gageler	Nauru-a	AU20	Appellent	0.62	0.0333	0.528	0.72
Edelman	Nauru-b	AU20	Appellent	1.02	0.0630	0.852	1.22
Nettle	Nauru-b	AU20	Appellent	0.94	0.0565	0.785	1.12
Gageler	Nauru-b	AU20	Appellent	0.72	0.0450	0.604	0.87
Edelman	Rinehart-a	AU20	Appellent	0.71	0.0268	0.639	0.80
Kiefel	Rinehart-a	AU20	Appellent	0.93	0.0386	0.826	1.05
Nettle	Rinehart-a	AU20	Appellent	0.74	0.0311	0.656	0.84
Gageler	Rinehart-a	AU20	Appellent	0.50	0.0198	0.450	0.57
Edelman	Rinehart-b	AU20	Appellent	0.68	0.0740	0.492	0.93
Nettle	Rinehart-b	AU20	Appellent	0.61	0.0796	0.419	0.89
Gageler	Rinehart-b	AU20	Appellent	0.56	0.0664	0.398	0.79
Edelman	McKell	AU20	Appellent	0.91	0.0463	0.785	1.06

Table A.7: *model result 3 for mean intensity*

judge	video	AU	speaker	response	SE	asymp.LCL	asymp.UCL
Keane	McKell	AU20	Appellent	1.03	0.0551	0.886	1.21
Gageler	McKell	AU20	Appellent	0.68	0.0365	0.577	0.79
Bell	McKell	AU20	Appellent	0.44	0.0240	0.373	0.51
Edelman	OKS	AU20	Appellent	0.90	0.0720	0.714	1.14
Keane	OKS	AU20	Appellent	1.10	0.0899	0.870	1.40
Gageler	OKS	AU20	Appellent	1.03	0.0819	0.816	1.30
Bell	OKS	AU20	Appellent	0.73	0.0606	0.570	0.93
Edelman	Parkes	AU20	Appellent	0.97	0.0423	0.857	1.10
Keane	Parkes	AU20	Appellent	0.86	0.0415	0.744	0.99
Kiefel	Parkes	AU20	Appellent	0.98	0.0452	0.852	1.12
Bell	Parkes	AU20	Appellent	0.37	0.0205	0.314	0.43
Edelman	Nauru-a	AU45	Appellent	0.40	0.0222	0.343	0.47
Nettle	Nauru-a	AU45	Appellent	0.24	0.0145	0.196	0.28
Gageler	Nauru-a	AU45	Appellent	0.51	0.0280	0.432	0.60
Edelman	Nauru-b	AU45	Appellent	0.36	0.0228	0.297	0.43
Nettle	Nauru-b	AU45	Appellent	0.20	0.0145	0.162	0.25
Gageler	Nauru-b	AU45	Appellent	0.49	0.0333	0.404	0.60
Edelman	Rinehart-a	AU45	Appellent	0.28	0.0117	0.252	0.32
Kiefel	Rinehart-a	AU45	Appellent	1.04	0.0432	0.919	1.17
Nettle	Rinehart-a	AU45	Appellent	0.18	0.0093	0.155	0.21
Gageler	Rinehart-a	AU45	Appellent	0.39	0.0160	0.346	0.44
Edelman	Rinehart-b	AU45	Appellent	0.20	0.0227	0.148	0.28
Nettle	Rinehart-b	AU45	Appellent	0.11	0.0133	0.080	0.16
Gageler	Rinehart-b	AU45	Appellent	0.33	0.0339	0.244	0.44
Edelman	McKell	AU45	Appellent	0.33	0.0179	0.281	0.39
Keane	McKell	AU45	Appellent	0.56	0.0316	0.475	0.66
Gageler	McKell	AU45	Appellent	0.47	0.0253	0.405	0.55

Table A.7: *model result 3 for mean intensity*

judge	video	AU	speaker	response	SE	asymp.LCL	asymp.UCL
Bell	McKell	AU45	Appellent	0.35	0.0193	0.299	0.41
Edelman	OKS	AU45	Appellent	0.19	0.0160	0.152	0.25
Keane	OKS	AU45	Appellent	0.35	0.0325	0.270	0.46
Gageler	OKS	AU45	Appellent	0.43	0.0350	0.336	0.54
Bell	OKS	AU45	Appellent	0.34	0.0301	0.267	0.44
Edelman	Parkes	AU45	Appellent	0.37	0.0167	0.328	0.43
Keane	Parkes	AU45	Appellent	0.49	0.0253	0.425	0.57
Kiefel	Parkes	AU45	Appellent	1.05	0.0489	0.915	1.20
Bell	Parkes	AU45	Appellent	0.31	0.0183	0.265	0.37
Edelman	Nauru-a	AU01	Respondent	0.65	0.0380	0.548	0.77
Nettle	Nauru-a	AU01	Respondent	0.78	0.0456	0.655	0.92
Gageler	Nauru-a	AU01	Respondent	0.53	0.0321	0.442	0.63
Edelman	Nauru-b	AU01	Respondent	0.65	0.0448	0.527	0.79
Nettle	Nauru-b	AU01	Respondent	0.74	0.0532	0.599	0.91
Gageler	Nauru-b	AU01	Respondent	0.57	0.0426	0.460	0.71
Edelman	Rinehart-a	AU01	Respondent	0.49	0.0218	0.427	0.55
Kiefel	Rinehart-a	AU01	Respondent	0.26	0.0114	0.231	0.30
Nettle	Rinehart-a	AU01	Respondent	0.63	0.0256	0.562	0.71
Gageler	Rinehart-a	AU01	Respondent	0.43	0.0191	0.378	0.49
Edelman	Rinehart-b	AU01	Respondent	0.50	0.0534	0.368	0.68
Nettle	Rinehart-b	AU01	Respondent	0.57	0.0567	0.424	0.76
Gageler	Rinehart-b	AU01	Respondent	0.52	0.0563	0.379	0.71
Edelman	McKell	AU01	Respondent	0.36	0.0235	0.293	0.43
Keane	McKell	AU01	Respondent	0.37	0.0413	0.263	0.51
Gageler	McKell	AU01	Respondent	0.33	0.0232	0.268	0.40
Bell	McKell	AU01	Respondent	0.27	0.0184	0.219	0.33
Edelman	OKS	AU01	Respondent	0.58	0.0555	0.440	0.77

Table A.7: *model result 3 for mean intensity*

judge	video	AU	speaker	response	SE	asymp.LCL	asymp.UCL
Keane	OKS	AU01	Respondent	0.64	0.0935	0.422	0.98
Gageler	OKS	AU01	Respondent	0.83	0.0854	0.613	1.12
Bell	OKS	AU01	Respondent	0.74	0.0799	0.537	1.01
Edelman	Parkes	AU01	Respondent	0.46	0.0228	0.399	0.53
Keane	Parkes	AU01	Respondent	0.37	0.0369	0.274	0.49
Kiefel	Parkes	AU01	Respondent	0.19	0.0106	0.162	0.22
Bell	Parkes	AU01	Respondent	0.27	0.0182	0.226	0.33
Edelman	Nauru-a	AU04	Respondent	0.70	0.0375	0.601	0.82
Nettle	Nauru-a	AU04	Respondent	0.57	0.0334	0.480	0.68
Gageler	Nauru-a	AU04	Respondent	0.84	0.0453	0.718	0.98
Edelman	Nauru-b	AU04	Respondent	0.69	0.0454	0.566	0.83
Nettle	Nauru-b	AU04	Respondent	0.53	0.0387	0.432	0.66
Gageler	Nauru-b	AU04	Respondent	0.89	0.0603	0.735	1.09
Edelman	Rinehart-a	AU04	Respondent	0.41	0.0171	0.367	0.47
Kiefel	Rinehart-a	AU04	Respondent	0.31	0.0136	0.268	0.35
Nettle	Rinehart-a	AU04	Respondent	0.36	0.0151	0.323	0.41
Gageler	Rinehart-a	AU04	Respondent	0.54	0.0209	0.481	0.60
Edelman	Rinehart-b	AU04	Respondent	0.75	0.0807	0.549	1.03
Nettle	Rinehart-b	AU04	Respondent	0.58	0.0561	0.434	0.77
Gageler	Rinehart-b	AU04	Respondent	1.14	0.1131	0.859	1.53
Edelman	McKell	AU04	Respondent	0.41	0.0232	0.350	0.49
Keane	McKell	AU04	Respondent	0.60	0.0373	0.498	0.72
Gageler	McKell	AU04	Respondent	0.56	0.0309	0.478	0.66
Bell	McKell	AU04	Respondent	0.67	0.0389	0.567	0.79
Edelman	OKS	AU04	Respondent	0.31	0.0250	0.244	0.39
Keane	OKS	AU04	Respondent	0.48	0.0446	0.369	0.63
Gageler	OKS	AU04	Respondent	0.65	0.0521	0.513	0.82

Table A.7: *model result 3 for mean intensity*

judge	video	AU	speaker	response	SE	asymp.LCL	asymp.UCL
Bell	OKS	AU04	Respondent	0.85	0.0700	0.665	1.08
Edelman	Parkes	AU04	Respondent	0.44	0.0204	0.387	0.51
Keane	Parkes	AU04	Respondent	0.50	0.0273	0.424	0.58
Kiefel	Parkes	AU04	Respondent	0.25	0.0120	0.218	0.29
Bell	Parkes	AU04	Respondent	0.57	0.0261	0.497	0.65
Edelman	Nauru-a	AU05	Respondent	0.49	0.0326	0.406	0.60
Nettle	Nauru-a	AU05	Respondent	0.66	0.0426	0.547	0.80
Gageler	Nauru-a	AU05	Respondent	0.93	0.0589	0.778	1.12
Edelman	Nauru-b	AU05	Respondent	0.53	0.0409	0.426	0.67
Nettle	Nauru-b	AU05	Respondent	0.68	0.0529	0.547	0.86
Gageler	Nauru-b	AU05	Respondent	1.10	0.0806	0.891	1.36
Edelman	Rinehart-a	AU05	Respondent	0.42	0.0200	0.368	0.49
Kiefel	Rinehart-a	AU05	Respondent	0.34	0.0205	0.286	0.41
Nettle	Rinehart-a	AU05	Respondent	0.62	0.0284	0.538	0.70
Gageler	Rinehart-a	AU05	Respondent	0.87	0.0348	0.777	0.98
Edelman	Rinehart-b	AU05	Respondent	0.33	0.0385	0.236	0.46
Nettle	Rinehart-b	AU05	Respondent	0.42	0.0469	0.303	0.58
Gageler	Rinehart-b	AU05	Respondent	0.80	0.0849	0.588	1.09
Edelman	McKell	AU05	Respondent	0.41	0.0279	0.334	0.50
Keane	McKell	AU05	Respondent	0.78	0.0586	0.622	0.97
Gageler	McKell	AU05	Respondent	0.88	0.0525	0.741	1.05
Bell	McKell	AU05	Respondent	0.32	0.0228	0.258	0.39
Edelman	OKS	AU05	Respondent	0.65	0.0822	0.446	0.94
Keane	OKS	AU05	Respondent	1.32	0.1448	0.962	1.82
Gageler	OKS	AU05	Respondent	2.15	0.2759	1.479	3.12
Bell	OKS	AU05	Respondent	0.85	0.0856	0.631	1.14
Edelman	Parkes	AU05	Respondent	0.39	0.0206	0.332	0.45

Table A.7: *model result 3 for mean intensity*

judge	video	AU	speaker	response	SE	asymp.LCL	asymp.UCL
Keane	Parkes	AU05	Respondent	0.57	0.0330	0.484	0.68
Kiefel	Parkes	AU05	Respondent	0.24	0.0120	0.207	0.28
Bell	Parkes	AU05	Respondent	0.24	0.0158	0.197	0.29
Edelman	Nauru-a	AU07	Respondent	1.04	0.0711	0.849	1.27
Nettle	Nauru-a	AU07	Respondent	1.00	0.0644	0.826	1.20
Gageler	Nauru-a	AU07	Respondent	0.86	0.0565	0.706	1.04
Edelman	Nauru-b	AU07	Respondent	0.80	0.0674	0.622	1.02
Nettle	Nauru-b	AU07	Respondent	0.73	0.0569	0.584	0.92
Gageler	Nauru-b	AU07	Respondent	0.72	0.0576	0.566	0.90
Edelman	Rinehart-a	AU07	Respondent	0.61	0.0264	0.542	0.70
Kiefel	Rinehart-a	AU07	Respondent	0.43	0.0280	0.353	0.52
Nettle	Rinehart-a	AU07	Respondent	0.64	0.0280	0.564	0.73
Gageler	Rinehart-a	AU07	Respondent	0.55	0.0264	0.480	0.63
Edelman	Rinehart-b	AU07	Respondent	0.65	0.0657	0.484	0.87
Nettle	Rinehart-b	AU07	Respondent	0.59	0.0586	0.442	0.79
Gageler	Rinehart-b	AU07	Respondent	0.68	0.0735	0.499	0.93
Edelman	McKell	AU07	Respondent	0.61	0.0355	0.519	0.73
Keane	McKell	AU07	Respondent	1.28	0.0777	1.074	1.53
Gageler	McKell	AU07	Respondent	0.58	0.0363	0.480	0.69
Bell	McKell	AU07	Respondent	0.91	0.0537	0.769	1.08
Edelman	OKS	AU07	Respondent	0.35	0.0303	0.275	0.45
Keane	OKS	AU07	Respondent	0.79	0.0712	0.612	1.03
Gageler	OKS	AU07	Respondent	0.51	0.0483	0.388	0.67
Bell	OKS	AU07	Respondent	0.88	0.0847	0.666	1.17
Edelman	Parkes	AU07	Respondent	0.52	0.0245	0.453	0.60
Keane	Parkes	AU07	Respondent	0.84	0.0437	0.723	0.98
Kiefel	Parkes	AU07	Respondent	0.28	0.0220	0.220	0.35

Table A.7: *model result 3 for mean intensity*

judge	video	AU	speaker	response	SE	asymp.LCL	asymp.UCL
Bell	Parkes	AU07	Respondent	0.61	0.0336	0.519	0.72
Edelman	Nauru-a	AU09	Respondent	0.61	0.0334	0.524	0.72
Nettle	Nauru-a	AU09	Respondent	0.78	0.0432	0.660	0.91
Gageler	Nauru-a	AU09	Respondent	0.66	0.0351	0.568	0.77
Edelman	Nauru-b	AU09	Respondent	0.58	0.0404	0.477	0.71
Nettle	Nauru-b	AU09	Respondent	0.71	0.0474	0.581	0.86
Gageler	Nauru-b	AU09	Respondent	0.69	0.0441	0.569	0.83
Edelman	Rinehart-a	AU09	Respondent	0.33	0.0143	0.293	0.38
Kiefel	Rinehart-a	AU09	Respondent	0.16	0.0142	0.123	0.21
Nettle	Rinehart-a	AU09	Respondent	0.46	0.0184	0.405	0.51
Gageler	Rinehart-a	AU09	Respondent	0.39	0.0164	0.345	0.44
Edelman	Rinehart-b	AU09	Respondent	0.41	0.0472	0.297	0.58
Nettle	Rinehart-b	AU09	Respondent	0.50	0.0534	0.362	0.68
Gageler	Rinehart-b	AU09	Respondent	0.57	0.0657	0.407	0.80
Edelman	McKell	AU09	Respondent	0.27	0.0153	0.230	0.32
Keane	McKell	AU09	Respondent	0.55	0.0352	0.455	0.66
Gageler	McKell	AU09	Respondent	0.33	0.0209	0.278	0.40
Bell	McKell	AU09	Respondent	0.62	0.0389	0.521	0.75
Edelman	OKS	AU09	Respondent	0.22	0.0183	0.170	0.28
Keane	OKS	AU09	Respondent	0.47	0.0426	0.365	0.62
Gageler	OKS	AU09	Respondent	0.41	0.0338	0.324	0.52
Bell	OKS	AU09	Respondent	0.84	0.0702	0.659	1.07
Edelman	Parkes	AU09	Respondent	0.37	0.0176	0.321	0.42
Keane	Parkes	AU09	Respondent	0.58	0.0338	0.488	0.69
Kiefel	Parkes	AU09	Respondent	0.14	0.0116	0.106	0.17
Bell	Parkes	AU09	Respondent	0.67	0.0312	0.584	0.77
Edelman	Nauru-a	AU14	Respondent	0.58	0.0345	0.489	0.69

Table A.7: *model result 3 for mean intensity*

judge	video	AU	speaker	response	SE	asymp.LCL	asymp.UCL
Nettle	Nauru-a	AU14	Respondent	0.61	0.0386	0.509	0.73
Gageler	Nauru-a	AU14	Respondent	0.45	0.0271	0.373	0.53
Edelman	Nauru-b	AU14	Respondent	0.70	0.0499	0.571	0.86
Nettle	Nauru-b	AU14	Respondent	0.71	0.0504	0.575	0.87
Gageler	Nauru-b	AU14	Respondent	0.59	0.0439	0.472	0.73
Edelman	Rinehart-a	AU14	Respondent	0.39	0.0157	0.350	0.44
Kiefel	Rinehart-a	AU14	Respondent	0.40	0.0182	0.353	0.46
Nettle	Rinehart-a	AU14	Respondent	0.45	0.0190	0.398	0.51
Gageler	Rinehart-a	AU14	Respondent	0.33	0.0164	0.283	0.38
Edelman	Rinehart-b	AU14	Respondent	0.46	0.0478	0.345	0.63
Nettle	Rinehart-b	AU14	Respondent	0.46	0.0450	0.348	0.61
Gageler	Rinehart-b	AU14	Respondent	0.45	0.0466	0.337	0.61
Edelman	McKell	AU14	Respondent	0.40	0.0262	0.335	0.49
Keane	McKell	AU14	Respondent	0.71	0.0462	0.589	0.86
Gageler	McKell	AU14	Respondent	0.35	0.0260	0.285	0.44
Bell	McKell	AU14	Respondent	0.14	0.0149	0.101	0.19
Edelman	OKS	AU14	Respondent	0.48	0.0433	0.369	0.62
Keane	OKS	AU14	Respondent	0.91	0.0885	0.684	1.21
Gageler	OKS	AU14	Respondent	0.64	0.0571	0.497	0.83
Bell	OKS	AU14	Respondent	0.27	0.0331	0.193	0.39
Edelman	Parkes	AU14	Respondent	0.50	0.0233	0.436	0.57
Keane	Parkes	AU14	Respondent	0.68	0.0354	0.586	0.79
Kiefel	Parkes	AU14	Respondent	0.39	0.0185	0.341	0.45
Bell	Parkes	AU14	Respondent	0.13	0.0163	0.094	0.19
Edelman	Nauru-a	AU15	Respondent	0.25	0.0159	0.206	0.30
Nettle	Nauru-a	AU15	Respondent	0.45	0.0274	0.377	0.54
Gageler	Nauru-a	AU15	Respondent	0.23	0.0160	0.190	0.28

Table A.7: *model result 3 for mean intensity*

judge	video	AU	speaker	response	SE	asymp.LCL	asymp.UCL
Edelman	Nauru-b	AU15	Respondent	0.33	0.0250	0.262	0.41
Nettle	Nauru-b	AU15	Respondent	0.57	0.0415	0.460	0.70
Gageler	Nauru-b	AU15	Respondent	0.33	0.0254	0.268	0.42
Edelman	Rinehart-a	AU15	Respondent	0.25	0.0104	0.222	0.28
Kiefel	Rinehart-a	AU15	Respondent	0.19	0.0082	0.165	0.21
Nettle	Rinehart-a	AU15	Respondent	0.49	0.0198	0.438	0.55
Gageler	Rinehart-a	AU15	Respondent	0.25	0.0106	0.226	0.29
Edelman	Rinehart-b	AU15	Respondent	0.17	0.0199	0.119	0.24
Nettle	Rinehart-b	AU15	Respondent	0.29	0.0297	0.213	0.39
Gageler	Rinehart-b	AU15	Respondent	0.20	0.0227	0.144	0.28
Edelman	McKell	AU15	Respondent	0.26	0.0150	0.216	0.30
Keane	McKell	AU15	Respondent	0.63	0.0365	0.534	0.75
Gageler	McKell	AU15	Respondent	0.27	0.0169	0.228	0.33
Bell	McKell	AU15	Respondent	0.51	0.0296	0.428	0.60
Edelman	OKS	AU15	Respondent	0.28	0.0236	0.222	0.36
Keane	OKS	AU15	Respondent	0.75	0.0643	0.586	0.96
Gageler	OKS	AU15	Respondent	0.46	0.0388	0.364	0.59
Bell	OKS	AU15	Respondent	0.94	0.0936	0.703	1.26
Edelman	Parkes	AU15	Respondent	0.46	0.0221	0.399	0.53
Keane	Parkes	AU15	Respondent	0.88	0.0410	0.767	1.01
Kiefel	Parkes	AU15	Respondent	0.26	0.0132	0.228	0.31
Bell	Parkes	AU15	Respondent	0.72	0.0360	0.619	0.83
Edelman	Nauru-a	AU20	Respondent	0.92	0.0504	0.784	1.08
Nettle	Nauru-a	AU20	Respondent	0.81	0.0441	0.689	0.95
Gageler	Nauru-a	AU20	Respondent	0.62	0.0342	0.533	0.73
Edelman	Nauru-b	AU20	Respondent	0.99	0.0637	0.820	1.19
Nettle	Nauru-b	AU20	Respondent	0.83	0.0534	0.690	1.00

Table A.7: *model result 3 for mean intensity*

judge	video	AU	speaker	response	SE	asymp.LCL	asymp.UCL
Gageler	Nauru-b	AU20	Respondent	0.73	0.0480	0.606	0.89
Edelman	Rinehart-a	AU20	Respondent	0.69	0.0246	0.623	0.77
Kiefel	Rinehart-a	AU20	Respondent	0.77	0.0300	0.691	0.87
Nettle	Rinehart-a	AU20	Respondent	0.66	0.0261	0.587	0.74
Gageler	Rinehart-a	AU20	Respondent	0.51	0.0191	0.458	0.57
Edelman	Rinehart-b	AU20	Respondent	0.66	0.0721	0.476	0.90
Nettle	Rinehart-b	AU20	Respondent	0.54	0.0713	0.372	0.80
Gageler	Rinehart-b	AU20	Respondent	0.57	0.0676	0.402	0.80
Edelman	McKell	AU20	Respondent	0.88	0.0464	0.757	1.03
Keane	McKell	AU20	Respondent	1.14	0.0638	0.964	1.34
Gageler	McKell	AU20	Respondent	0.68	0.0382	0.581	0.80
Bell	McKell	AU20	Respondent	0.36	0.0208	0.304	0.43
Edelman	OKS	AU20	Respondent	0.87	0.0703	0.691	1.10
Keane	OKS	AU20	Respondent	1.21	0.0986	0.955	1.53
Gageler	OKS	AU20	Respondent	1.04	0.0827	0.826	1.31
Bell	OKS	AU20	Respondent	0.60	0.0486	0.472	0.76
Edelman	Parkes	AU20	Respondent	0.94	0.0395	0.835	1.07
Keane	Parkes	AU20	Respondent	0.94	0.0428	0.824	1.07
Kiefel	Parkes	AU20	Respondent	0.81	0.0354	0.712	0.92
Bell	Parkes	AU20	Respondent	0.30	0.0149	0.263	0.35
Edelman	Nauru-a	AU45	Respondent	0.39	0.0217	0.332	0.46
Nettle	Nauru-a	AU45	Respondent	0.21	0.0133	0.174	0.25
Gageler	Nauru-a	AU45	Respondent	0.51	0.0288	0.436	0.60
Edelman	Nauru-b	AU45	Respondent	0.35	0.0229	0.286	0.42
Nettle	Nauru-b	AU45	Respondent	0.18	0.0136	0.143	0.22
Gageler	Nauru-b	AU45	Respondent	0.50	0.0353	0.405	0.61
Edelman	Rinehart-a	AU45	Respondent	0.28	0.0106	0.246	0.31

Table A.7: *model result 3 for mean intensity*

judge	video	AU	speaker	response	SE	asymp.LCL	asymp.UCL
Kiefel	Rinehart-a	AU45	Respondent	0.86	0.0336	0.768	0.96
Nettle	Rinehart-a	AU45	Respondent	0.16	0.0082	0.138	0.19
Gageler	Rinehart-a	AU45	Respondent	0.39	0.0155	0.352	0.44
Edelman	Rinehart-b	AU45	Respondent	0.20	0.0221	0.144	0.27
Nettle	Rinehart-b	AU45	Respondent	0.10	0.0120	0.071	0.14
Gageler	Rinehart-b	AU45	Respondent	0.33	0.0346	0.246	0.45
Edelman	McKell	AU45	Respondent	0.32	0.0178	0.271	0.38
Keane	McKell	AU45	Respondent	0.61	0.0368	0.516	0.73
Gageler	McKell	AU45	Respondent	0.48	0.0265	0.408	0.56
Bell	McKell	AU45	Respondent	0.29	0.0168	0.243	0.34
Edelman	OKS	AU45	Respondent	0.19	0.0156	0.147	0.24
Keane	OKS	AU45	Respondent	0.39	0.0356	0.297	0.51
Gageler	OKS	AU45	Respondent	0.43	0.0354	0.341	0.55
Bell	OKS	AU45	Respondent	0.28	0.0244	0.221	0.36
Edelman	Parkes	AU45	Respondent	0.36	0.0156	0.320	0.41
Keane	Parkes	AU45	Respondent	0.54	0.0266	0.469	0.62
Kiefel	Parkes	AU45	Respondent	0.87	0.0384	0.765	0.99
Bell	Parkes	AU45	Respondent	0.26	0.0136	0.221	0.30

Table A.3: *Estimated marginal mean summary for Model 1. The confidence interval is adjusted using bonferroni adjustment*

judge	AU	prob	SE	asymp.LCL	asymp.UCL
Edelman	AU01	0.59	0.0154	0.544	0.63
Keane	AU01	0.11	0.0156	0.074	0.16
Kiefel	AU01	0.49	0.0211	0.434	0.55
Nettle	AU01	0.71	0.0183	0.654	0.75
Gageler	AU01	0.32	0.0166	0.281	0.37
Bell	AU01	0.69	0.0230	0.627	0.75
Edelman	AU02	0.95	0.0069	0.925	0.96
Keane	AU02	0.78	0.0207	0.719	0.83
Kiefel	AU02	0.95	0.0091	0.920	0.97
Nettle	AU02	1.00	0.0028	0.977	1.00
Gageler	AU02	0.85	0.0125	0.816	0.88
Bell	AU02	0.73	0.0223	0.661	0.78
Edelman	AU05	0.30	0.0143	0.259	0.34
Keane	AU05	0.54	0.0249	0.468	0.60
Kiefel	AU05	0.34	0.0201	0.291	0.40
Nettle	AU05	0.25	0.0173	0.201	0.30
Gageler	AU05	0.66	0.0168	0.618	0.71
Bell	AU05	0.55	0.0248	0.483	0.62
Edelman	AU07	0.39	0.0152	0.347	0.43
Keane	AU07	0.65	0.0239	0.578	0.71
Kiefel	AU07	0.16	0.0154	0.120	0.20
Nettle	AU07	0.51	0.0201	0.458	0.57
Gageler	AU07	0.30	0.0162	0.256	0.34
Bell	AU07	0.62	0.0243	0.550	0.68
Edelman	AU14	0.43	0.0155	0.387	0.47
Keane	AU14	0.71	0.0227	0.643	0.77
Kiefel	AU14	0.52	0.0211	0.463	0.58
Nettle	AU14	0.49	0.0201	0.431	0.54
Gageler	AU14	0.62	0.0173	0.568	0.66
Bell	AU14	0.15	0.0179	0.109	0.21
Edelman	AU15	0.46	0.0156	0.415	0.50
Keane	AU15	0.87	0.0170	0.812	0.91
Kiefel	AU15	0.44	0.0210	0.385	0.50
Nettle	AU15	0.78	0.0166	0.732	0.82
Gageler	AU15	0.62	0.0172	0.574	0.67
Bell	AU15	0.86	0.0176	0.800	0.90
Edelman	AU20	0.77	0.0132	0.730	0.80
Keane	AU20	0.93	0.0131	0.880	0.95
Kiefel	AU20	0.84	0.0154	0.796	0.88
Nettle	AU20	0.74	0.0176	0.691	0.79
Gageler	AU20	0.55	0.0177	0.497	0.59
Bell	AU20	0.62	0.0242	0.555	0.69
Edelman	AU25	0.30	0.0144	0.263	0.34
Keane	AU25	0.15	0.0181	0.111	0.21
Kiefel	AU25	0.90	0.0129	0.855	0.93
Nettle	AU25	0.40	0.0197	0.352	0.46
Gageler	AU25	0.47	0.0177	0.422	0.52
Bell	AU25	0.80	0.0201	0.735	0.85

Bibliography

Aliotta, JM (1987-1988). Combining Judges' Attributes and Case Characteristics: An Alternative Approach to Explaining Supreme Court Decisionmaking. *Judicature* **71**, 277.

Australia, HC of (2019). *Recent AV recordings*. Accessed: 2019-05-03. http://www.hcourt.gov.au/cases/recent-av-recordings.

Baltrusaitis, T, A Zadeh, YC Lim, and LP Morency (2018). Openface 2.0: Facial behavior analysis toolkit. In: *2018 13th IEEE International Conference on Automatic Face & Gesture Recognition (FG 2018)*. IEEE, pp.59–66.

Bellard, F (2019). *ffmpeg*. https://ffmpeg.org/.

Black, RC, SA Treul, TR Johnson, and J Goldman (2011). Emotions, oral arguments, and Supreme Court decision making. *The Journal of Politics* **73**(2), 572–581.

Chen, DL, M Kumar, V Motwani, and P Yeres (2018). *Is Justice Really Blind? And Is It Also Deaf*. Tech. rep. Technical report.

Chen, D, Y Halberstam, and C Alan (2016). Perceived masculinity predicts us supreme court outcomes. *PloS one* **11**(10), e0164324.

Chen, D, Y Halberstam, A Yu, et al. (2017). Covering: Mutable characteristics and perceptions of voice in the US Supreme Court. *Review of Economic Studies invited to resubmit, TSE Working Paper* (16-680).

Chief Justices of Australia, TC of and N Zealand (2017). *Guide to Judicial Conduct*. 3rd. Melbourne: Austral-asian Institute of Judicial Administration.

Cohn, JF, TS Kruez, I Matthews, Y Yang, MH Nguyen, MT Padilla, F Zhou, and F De la Torre (2009). Detecting depression from facial actions and vocal prosody. In: *2009 3rd International Conference on Affective Computing and Intelligent Interaction and Workshops*, pp.1–7.

Cragg, JG (1971). Some statistical models for limited dependent variables with application to the demand for durable goods. *Econometrica (pre-1986)* **39**(5), 829.

Cristy, J, D Lemstra, G Randers-Pehrson, and B Roucries (2019). *ImageMagick-dl*. https://github.com/ImageMagick.

Diehr, P, D Yanez, A Ash, M Hornbrook, and D Lin (1999). Methods for analyzing health care utilization and costs. *Annual review of public health* **20**(1), 125–144.

Dietrich, BJ, RD Enos, and M Sen (2019). Emotional arousal predicts voting on the US supreme court. *Political Analysis* **27**(2), 237–243.

Duan, N, WG Manning, CN Morris, and JP Newhouse (1984). Choosing between the sample-selection model and the multi-part model. *Journal of Business & Economic Statistics* **2**(3), 283–289.

Ekman, P and WV Friesen (1976). Measuring facial movement. *Environmental psychology and nonverbal behavior* **1**(1), 56–75.

Ekman, P, WV Friesen, and JC Hager (2002). Facial action coding system: The manual on CD ROM. *A Human Face, Salt Lake City*, 77–254.

Ekman, P, M O'Sullivan, WV Friesen, and KR Scherer (1991). Invited article: Face, voice, and body in detecting deceit. *Journal of nonverbal behavior* **15**(2), 125–135.

Ekman, P and WV riesen (1978). *Facial action coding system*. Palo Alto: CA: Consulting Psychologists Press.

Epstein, L, WM Landes, and RA Posner (2010). Inferring the winning party in the Supreme Court from the pattern of questioning at oral argument. *The Journal of Legal Studies* **39**(2), 433–467.

Facial Action Coding System (n.d.). https://www.paulekman.com/facial-action-coding-system/.

Faraway, JJ (2016). *Extending the linear model with R: generalized linear, mixed effects and nonparametric regression models*. Chapman and Hall/CRC.

Gelman, A and J Hill (2006). *Data analysis using regression and multilevel/hierarchical models*. Cambridge university press.

Goffman, E (1956). The nature of deference and demeanor. *American Anthropologist* **58**(3), 473–502.

Hsuan, YC, R Amine, and M Sergey (2019). *youtube-dl*. https://github.com/ytdl-org/youtube-dl/.

Huang, CL and YM Huang (1997). Facial Expression Recognition Using Model-Based Feature Extraction and Action Parameters Classification. *Journal of Visual Communication and Image Representation* **8**(3), 278–290.

Huber, B, D McDuff, C Brockett, M Galley, and B Dolan (2018). Emotional Dialogue Generation Using Image-Grounded Language Models. In: *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems*. CHI '18. Montreal QC, Canada: ACM, pp.277:1–277:12. http://doi.acm.org/10.1145/3173574.3173851.

Johnson, TR, RC Black, J Goldman, and SA Treul (2009). Inquiring minds want to know: Do justices tip their hands with questions at oral argument in the US supreme court. *Washington University Journal of Law and Policy* **29**, 241.

Kapoor, A, Y Qi, and RW Picard (2003). Fully automatic upper facial action recognition. In: *IEEE International SOI Conference. Proceedings (Cat. No.03CH37443)*, pp.195–202.

Kobakian, S and M O'Hara-Wild (2018). *taipan: Tool for Annotating Images in Preparation for Analysis*. R package version 0.1.2. https://CRAN.R-project.org/package=taipan.

Kobayashi, H and F Hara (1992). Recognition of Six basic facial expression and their strength by neural network. In: *Proceedings IEEE International Workshop on Robot and Human Communication*, pp.381–386.

Koppen, PJ van and JT Kate (1984). Individual Differences in Judicial Behavior: Personal Characteristics and Private Law Decision-Making. *Law and Society Review* **18**(2), 225–247.

Kovalchik, S and M Reid (2018). Going inside the inner game: Predicting the emotions of professional tennis players from match broadcasts. In: MIT Sloan Sports Analytics Conference.

Kulik, CT and MB Perry Elissa L.and Pepper (2003). Here Comes the Judge: The Influence of Judge Personal Characteristics on Federal Sexual Harassment Case Outcomes. *Law and Human Behavior* **27**, 69–86.

Leung, SF and S Yu (1996). On the choice between sample selection and two-part models. *Journal of econometrics* **72**(1-2), 197–229.

Lien, JJJ, T Kanade, JF Cohn, and CC Li (2000). Detection, tracking, and classification of action units in facial expression. *Robotics and Autonomous Systems* **31**(3), 131–146.

Liu, L, RL Strawderman, ME Cowen, and YCT Shih (2010). A flexible two-part random effects model for correlated medical costs. *Journal of Health Economics* **29**(1), 110–123.

Lucey, P, JF Cohn, T Kanade, J Saragih, Z Ambadar, and I Matthews (2010). The Extended Cohn-Kanade Dataset (CK+): A complete dataset for action unit and emotion-specified expression. In: *IEEE Computer Society Conference on Computer Vision and Pattern Recognition - Workshops*, pp.94–101.

Manning, WG, N Duan, and WH Rogers (1987). Monte Carlo evidence on the choice between sample selection and two-part models. *Journal of econometrics* **35**(1), 59–82.

Manning, WG, CN Morris, JP Newhouse, LL Orr, N Duan, EB Keeler, A Leibowitz, KH Marquis, MS Marquis, and CE Phelps (1981). A two-part model of the demand for medical care: preliminary results from the health insurance study. *Health, economics, and health economics*, 103–123.

Nagel, SS (1962). Testing Relations Between Judicial Characteristics and Judicial Decision-Making. *Western Political Quarterly* **15**(3), 425–437. eprint: https://doi.org/10.1177/106591296201500301.

Nasir, M, A Jati, PG Shivakumar, S Nallan Chakravarthula, and P Georgiou (2016a). Multimodal and Multiresolution Depression Detection from Speech and Facial Landmark Features. In: *Proceedings of the 6th International Workshop on Audio/Visual Emotion Challenge*. AVEC '16. Amsterdam, The Netherlands: ACM, pp.43–50. http://doi.acm.org/10.1145/2988257.2988261.

Nasir, M, A Jati, PG Shivakumar, S Nallan Chakravarthula, and P Georgiou (2016b). Multimodal and multiresolution depression detection from speech and facial landmark features. In: *Proceedings of the 6th International Workshop on Audio/Visual Emotion Challenge*. ACM, pp.43–50.

Neelon, B and AJ O'Malley (2019). "Two-Part Models for Zero-Modified Count and Semicontinuous Data". In: *Health Services Evaluation*. New York, NY: Springer US, pp. 695–716. https://doi.org/10.1007/978-1-4939-8715-3_39.

Pan, X and AFdC Hamilton (2018). Why and how to use virtual reality to study human social interaction: The challenges of exploring a new research landscape. *British Journal* *of Psychology* **109**(3), 395–417. eprint: https://onlinelibrary.wiley.com/doi/pdf/10.1111/bjop.12290.

Schroff, F, D Kalenichenko, and J Philbin (2015). Facenet: A unified embedding for face recognition and clustering. In: *Proceedings of the IEEE conference on computer vision and pattern recognition*, pp.815–823.

Schubert, JN, SA Peterson, G Schubert, and S Wasby (1992). Observing Supreme Court oral argument: A biosocial approach. *Politics and the Life Sciences* **11**(1), 35–52.

Shullman, SL (2004). The illusion of devil's advocacy: How the justices of the supreme court foreshadow their decisions during oral argument. *Journal of Appellate Practice and Process 2* **271**(6).

Steffensmeier, D and CL Britt (2001). Judges' Race and Judicial Decision Making: Do Black Judges Sentence Differently? *Social Science Quarterly* **82**(4), 749–764. eprint: https://onlinelibrary.wiley.com/doi/pdf/10.1111/0038-4941.00057.

Taigman, Y, M Yang, M Ranzato, and L Wolf (2014). Deepface: Closing the gap to human-level performance in face verification. In: *Proceedings of the IEEE conference on computer vision and pattern recognition*, pp.1701–1708.

Tong, Y, W Liao, and Q Ji (2007). Facial Action Unit Recognition by Exploiting Their Dynamic and Semantic Relationships. *IEEE Transactions on Pattern Analysis and Machine Intelligence* **29**(10), 1683–1699.

Tutton, J, K Mack, and S Roach Anleu (2018). Judicial Demeanor: Oral Argument in the High Court of Australia. *Justice System Journal* **39**(3), 273–299.

Welch, S, M Combs, and J Gruhl (1988). Do Black Judges Make a Difference? *American Journal of Political Science* **32**(1), 126–136.

Yang, L, D Jiang, L He, E Pei, MC Oveneke, and H Sahli (2016). Decision tree based depression classification from audio video and language information. In: *Proceedings of the 6th International Workshop on Audio/Visual Emotion Challenge*. ACM, pp.89–96.