Ageing and communication in face-threatening contexts

Madeleine Long (U Oslo), Sarah MacPherson (U Edinburgh), Paula Rubio-Fernandez (U Oslo)
(madeleine.long@ifikk.uio.no)

Most research on face-saving focuses on whether listeners adjust their interpretation according to the degree to which their face is threatened [1-4]. For example, in a recent study, participants judged the probability of 'possibly' developing cancer (vs insomnia) as more likely because they assumed their doctor would use the term 'possibly' as a face-management device to diagnose what they perceived to be the more severe diagnosis [1]. While numerous studies show this sensitivity in comprehension, much less is known about the type of adjustments made during production [5-6] and how that might vary by age. To address these questions, we recruited adults over the lifespan to test how they relayed bad news to others. In keeping with the audience design literature, which shows younger adults use more partner-specific language than older adults [7-10], we predicted that younger adults would be more sensitive to a listener's perspective and thus save face to a greater extent. However, we also predicted that while speakers should consider both the recipient and event severity when giving bad news, adjusting the message to the recipient would be more important (and hence prevalent) than adjusting for event severity.

EXP 1 presented participants (N=100, ages 18-72) from Prolific (an online crowdsourcing platform) with 20 severe scenarios in which the recipient of the news varied. Participants were asked to convey the news in an open text box, then through multiple choice options (see Table 1). The inclusion of open text alongside multiple choice (the most commonly used method in this line of work [5-6]) allowed us to conduct nuanced analyses by coding for Indirectness, Uncertainty, and Emotion (Table 2). Our LMER model of Indirectness with Recipient (Face-threat, Non-face-threat) and Age as FE and max RE structure revealed a main effect of Recipient (p=.033), whereby indirectness increased when the listener's face was threatened. This mirrors results from the multiple-choice model where lower probabilities were selected in the face-threatening context (p<.001). Our model of Uncertainty also revealed a main effect of Recipient (p=.003), with greater uncertainty expressed in the face-threatening context. Supporting our prediction, there was a Recipient x Age interaction (p=.036), whereby younger adults expressed greater uncertainty when the recipient's face was threatened, while older adults did not (Fig. 1). Finally, our model of Emotion revealed a main effect of Recipient (p<.001), with less emotion conveyed when the recipient's face was threatened (perhaps to mitigate the discomfort of the situation). Similar to the Uncertainty model, a Recipient x Age interaction (p=.048) revealed that younger adults modulated their use of emotion based on the recipient's face, unlike older adults (Fig. 1).

EXP 2 presented a new set of Prolific participants (N=100, ages 19-70) with 20 face-threatening scenarios in which the severity of the outcomes varied. Participants again conveyed the news through both text responses and multiple choice and the same coding was used from Exp 1. Here our LMER model of Indirectness with Severity (Severe, Less Severe) and Age as FE and max RE structure revealed no main effects or interactions (all p's>.05). These results are in contrast to the multiple choice, where a main effect of Severity (p=.001) revealed that participants selected lower probability statements for the severe outcomes. In the Uncertainty model, there was also a main effect of Severity (p=.047), with greater uncertainty conveyed for the severe outcomes. Finally, the Emotion model revealed a main effect of Severity (p=.027), whereby more emotional language was used for the severe outcomes (perhaps as a way to convey sympathy).

Our study is the first to demonstrate age-related differences in how speakers relay news in face-threatening contexts. Confirming our main hypothesis, younger adults were more likely to adjust their speech along a number of dimensions (from indirectness to emotion) based on who the recipient was, likely due to enhanced audience design [7-10] or a difference in conversational goals [11]. We also found more speech modifications for Recipient than Severity. The absence of an effect of Severity on Indirectness suggests that estimates of severity may be perceived as less important than face-threat. Alternatively, adjusting for Recipient may be computationally easier than for Severity. Future work should further investigate these questions across the adult lifespan.

Table 1. Example trial from Exps 1 and 2

Exp 1 (Recipient manipulation)	
Scenario	Imagine that the company you work for has not been doing well financially. After a meeting with your boss, you are anxious that your co-worker will be made redundant. Later that day **your co-worker (face-threat)/someone from a different department (non-face-threat)** asks how the meeting went.
Open text	You tell your co-worker/the person from the other department: _____
Multiple choice	Out of the following options what would you tell your co-worker/the other person? ○ (1) It is highly unlikely you/my co-worker will be made redundant. ○ (2) It is somewhat unlikely you/my co-worker will be made redundant. ○ (3) It is possible you/my co-worker will be made redundant. ○ (4) There's a good chance you/my co-worker will be made redundant. ○ (5) It is almost certain you/my co-worker will be made redundant.

Exp 2 (Severity manipulation)	
Scenario	Imagine that the company you work for has not been doing well financially. After a meeting with your boss, you are anxious that your co-worker will **be made redundant (severe)/receive a salary decrease (less severe)**. Later that day your co-worker asks how the meeting went.
Open text	You tell your co-worker: _____
Multiple choice	Out of the following options what would you tell your co-worker? ○ (1) It is highly unlikely you will be made redundant/receive a salary decrease. ○ (2) It is somewhat unlikely you will be made redundant/receive a salary decrease. ○ (3) It is possible you will be made redundant/receive a salary decrease. ○ (4) There's a good chance you will be made redundant/receive a salary decrease. ○ (5) It is almost certain you will be made redundant/receive a salary decrease.

Table 2. Coding of variables

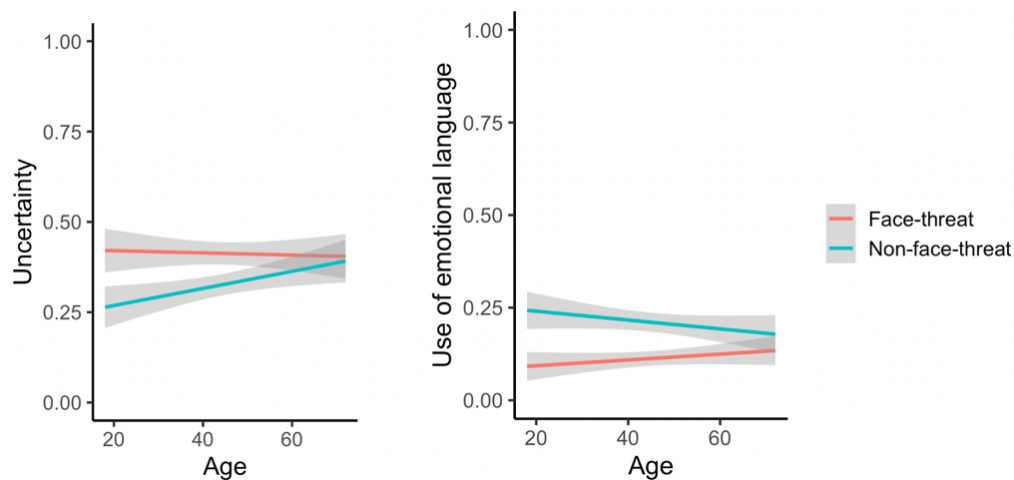| Coding	
Indirectness	1= Relay the bad news and give the reason for the bad news, 2= Relay the bad news only, 3= Give the reason in a way that requires an inference, 4= Don't give the bad news or lie
Uncertainty	1= Convey uncertainty (e.g. might, could, possible), 0= Don't convey uncertainty
Emotion	1= Convey emotions (e.g. I'm worried, afraid, etc.), 0= Don't convey emotions

Figure 1. Recipient x Age interactions for Uncertainty (left) and Emotion (right) from Exp 1.

References: [1] Bonnefon & Villejoubert, 2006. *Psych Sci.* [2] Juanchich & Butler, 2012. *Organ Behav Hum Decis Process.* [3] Bonnefon et al., 2009. *Cognition.* [4] Feeney & Bonnefon, 2013. *J Lang So. Psychol.* [5] Juanchich & Sirota, 2013. *Q J Exp Psychol.* [6] Holtgraves & Perdew, 2016. *Cognition.* [7] Horton & Spieler, 2007. *Psychol Aging.* [8] Healey & Grossman, 2016. *Exp Aging Res.* [9] Long et al., 2018. *Cognition.* [10] Schubotz et al., 2019. *Lang Cognit Process.* [11] James et al., 1998. Production and perception of verbosity in younger and older adults. *Psychol. Aging.*