



**University of Brighton**

LEVERHULME  
TRUST



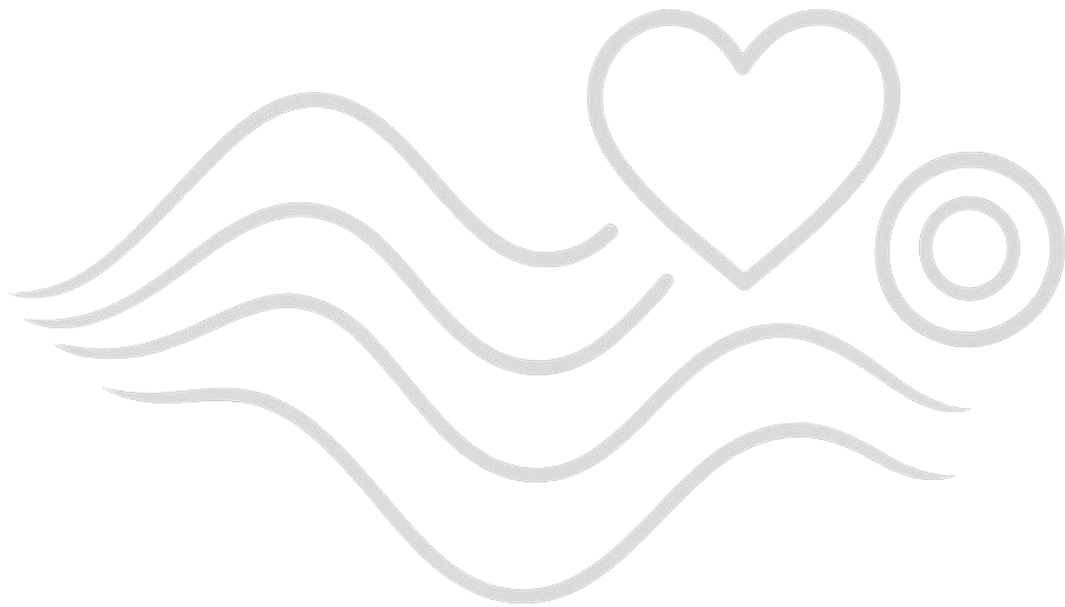
**Swiss National  
Science Foundation**



**UNIVERSITÉ  
DE GENÈVE**

CENTRE INTERFACULTAIRE  
EN SCIENCES AFFECTIVES

# BOOK OF ABSTRACTS



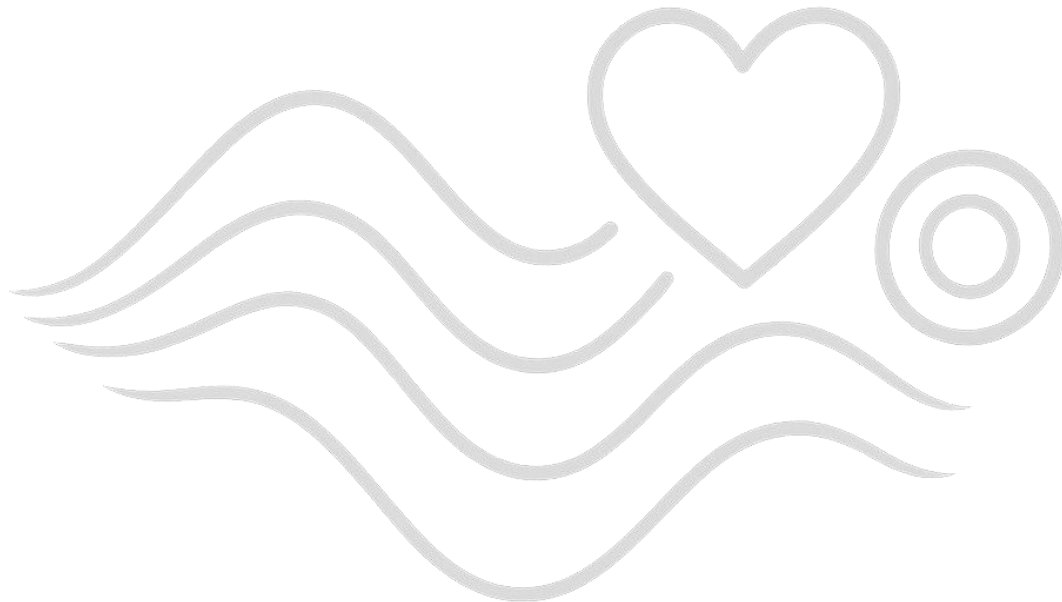
## Neural Pathways to Emotional Voices: A Deep Dive into Prosody

Didier Grandjean

University of Geneva

[Didier.Grandjean@unige.ch](mailto:Didier.Grandjean@unige.ch)

Emotional prosody refers to the concept of vocal modulations during an emotional episode. How do we decode the emotions of others based on their voices? What are the typical emotional acoustic modulations that enable us to represent the emotional state of the person we are speaking to? What are the brain mechanisms at work that enable us to construct a perceptual representation, based on an acoustic signal, which is then subject to emotional evaluation? These questions will be discussed during this presentation, providing a better understanding of the brain regions involved and the dynamics at work in constructing a vocal-based emotional representation of others.



**Beyond mechanics:**

**Throat vibrations and the embodiment of emotion in voice signals**

Leonardo Ceravolo, Manuela Filippa and Didier Grandjean

University of Geneva

[leonardo.ceravolo@unige.ch](mailto:leonardo.ceravolo@unige.ch)

Social communication entails complex dynamics through which one can infer and understand the affective state of one another, for example through the automatic extraction of subtle acoustic features from speech and voice signals. As humans, emotions are therefore embodied and a particularly good blueprint for such mechanism is the occurrence of throat vibrations upon voice production. These vibrations are transmitted through tissues and originate from the oscillations of the vocal folds. Whether these vibratory signals can be interpreted or used consciously by human participants and automatically by the brain remains elusive. In a series of three studies, we investigated whether human participants could accurately evaluate the bodily localization of vibrations emitted through vocal emotion production (Study 1, behavior & throat accelerometry); whether specific brain regions would correlate with such emitted vibrations (Study 2, functional MRI & throat accelerometry); finally, whether induced throat vibrations could influence vocal emotion-based decision-making as well as clarify the brain dynamics involved (Study 3, electroencephalography & throat vibrator). Our results confirmed the hypothesized: accurate localization and intensity assessment of vibrations occurring during vocal emotion production, especially in the upper torso and throat region (Study 1); brain correlates of emitted vibrations upon emotional voice production in the voice-sensitive superior temporal cortex, insular, motor, and somatosensory cortices illustrating bodily self-consciousness and matching voice production networks (Study 2); and biased decisions on the explicit categorization of emotionally-ambiguous voices, especially with induced angry vibrations, relying on a 350-400ms post-onset positivity in a fronto-central cluster of electrodes and originating in the motor and somatosensory cortices as well as in the supplementary motor area (Study 3). Taken together, our data suggest a crucial role of voice-related vibrations both in the perception and production of affective voice signals, and refine our understanding of human social communication through the embodiment of emotion in voice.

## How does roughness of human screams affect episodic memory?

Monika Riegel<sup>1,2,3,4,5</sup>, Oliver Febbo<sup>6</sup>, Tiffany Alicia Amor<sup>1,5</sup>, Guillaume Legendre<sup>7</sup>, Luc H. Arnal<sup>8</sup>, and Ulrike Rimele<sup>1,2,4,5,9</sup>

<sup>1</sup> Emotion and Memory Laboratory, Faculty of Psychology and Educational Sciences, UNIGE, Switzerland; <sup>2</sup> Swiss Center of Affective Sciences (CISA), UNIGE, Switzerland; <sup>3</sup> Scuola Internazionale Di Studi Avanzati (SISSA), Trieste, Italy; <sup>4</sup> Center for Interdisciplinary Study of Gerontology and Vulnerability (CIGEV), UNIGE, Switzerland; <sup>5</sup> Neurocenter, UNIGE, Switzerland; <sup>6</sup> Colorado College, CO, US; <sup>7</sup> Department of Basic Neuroscience, UNIGE, Switzerland; <sup>8</sup> Université Paris Cité, Institut Pasteur, AP-HP, INSERM, CNRS, Fondation Pour l'Audition, Institut de l'Audition, IHU reConnect, 75012, Paris, France; <sup>9</sup> Institute of Psychology, UNIL, Switzerland

[monika.riegel@unige.ch](mailto:monika.riegel@unige.ch)

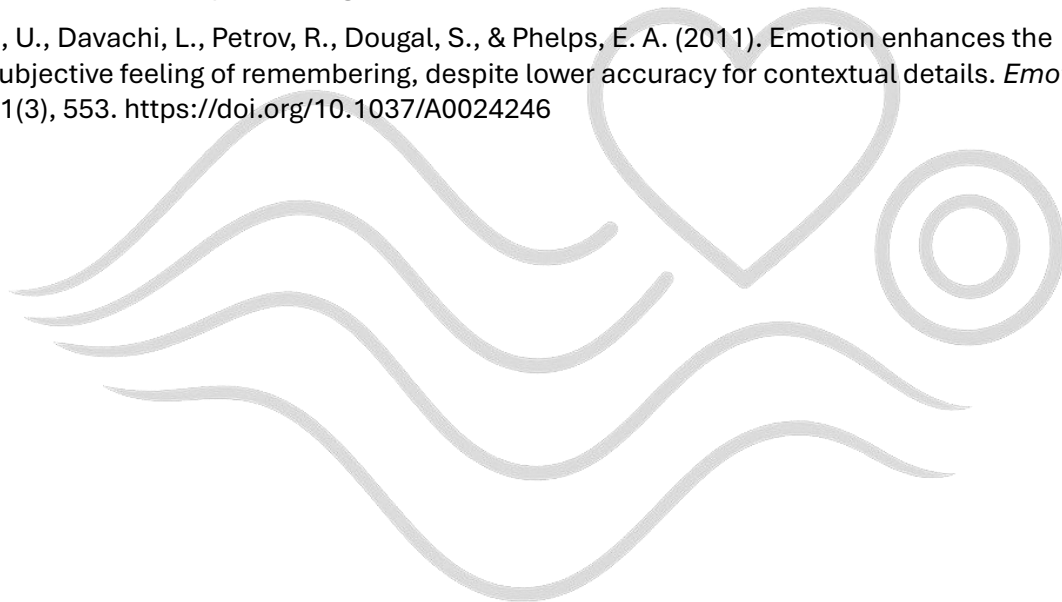
Human screams are emotionally salient alarm communications characterized by an acoustic attribute of roughness, which reliably increases the subjective aversiveness, captures attention, accelerates reactions, and induces brain activations in the primary auditory cortex and the amygdala (Arnal et al., 2015, 2019). As such, screams are typically interpreted as alarm signals optimized to interrupt ongoing behavior and promote immediate defensive action. However, salient and aversive signals are also known to modulate episodic memory formation (Riegel et al., 2023; Rimele et al., 2011), raising the possibility that screams may additionally function to enhance learning about dangerous events. It therefore remains unclear whether human screams primarily function as urgent warning signals that transiently disrupt cognitive processing ('interruption account'), or whether they are adapted to enhance the encoding and long-term memorability of threat-related events ('learning account'). These accounts suggest distinct behavioral predictions: if optimized for interruption, screams should impair encoding and reduce subsequent memory for contextual details; if optimized for learning, screams should enhance encoding and enhance later memory for the contextual details, particularly information relevant to future threat avoidance.

To solve this conundrum, we conducted three behavioral experiments (Exp. 1, 2 and 3), using an emotional memory paradigm with acoustically controlled stimuli (roughness, pitch) (Legendre et al., 2025). Participants encoded neutral objects presented in colored frames, each followed by either a scream or a neutral vocalization, and memory for items (objects) and context (frame colour) was subsequently tested. To examine effects on consolidation, memory was tested immediately after encoding (Exp. 1) and after 24 hours (Exp. 2). Moreover, pre- versus post-encoding effects of screams were compared (Exp. 3). Subjective arousal was measured with ratings during both encoding and retrieval, across all experiments.

In line with prior findings, screams were rated as more arousing and negative than neutral vocalizations at encoding and immediate retrieval, but this affective difference faded after 24 hours. In support of our first prediction ('interruption account') and contrary to our second prediction ('learning account'), item memory was not enhanced by the screams, regardless of a delay between encoding and retrieval. Moreover, context memory was consistently impaired if followed – but not preceded - by human screams vs. neutral vocalizations, both tested immediately and after 24 hours. These results indicate that the post-encoding exposure to the roughness of human screams selectively and persistently impairs episodic context memory. Together, these findings suggest that human screams primarily operate as immediate interruption signals that disrupt ongoing encoding processes, rather than as signals adapted to enhance long-term learning about dangerous events.

## References

- Arnal, L. H., Flinker, A., Kleinschmidt, A., Giraud, A. L., & Poeppel, D. (2015). Human Screams Occupy a Privileged Niche in the Communication Soundscape. *Current Biology*, 25(15), 2051–2056. <https://doi.org/10.1016/j.cub.2015.06.043>
- Arnal, L. H., Kleinschmidt, A., Spinelli, L., Giraud, A. L., & Mégevand, P. (2019). The rough sound of salience enhances aversion through neural synchronisation. *Nature Communications*, 10(1), 1–12. <https://doi.org/10.1038/s41467-019-11626-7>
- Legendre, G. Y. T., Moyne, M., Domínguez-Borràs, J., Kumar, S., Sterpenich, V., Schwartz, S., & Arnal, L. H. (2025). Scream's roughness grants privileged access to the brain during sleep. *Scientific Reports*, 15(1), 1–12. <https://doi.org/10.1038/s41598-025-01560-8>
- Riegel, M., Granja, D., Amer, T., Vuilleumier, P., & Rimmele, U. (2023). Opposite effects of emotion and event segmentation on temporal order memory and object-context binding. *Cognition and Emotion*, 1–19. <https://doi.org/10.1080/02699931.2023.2270195>
- Rimmele, U., Davachi, L., Petrov, R., Dougal, S., & Phelps, E. A. (2011). Emotion enhances the subjective feeling of remembering, despite lower accuracy for contextual details. *Emotion*, 11(3), 553. <https://doi.org/10.1037/A0024246>



**The music of speech:  
Relevance, prosody and melody**

Joe Reynolds

University of Brighton

[j.reynolds10@uni.brighton.ac.uk](mailto:j.reynolds10@uni.brighton.ac.uk)

"Since intonation is synonymous with speech melody, and melody is a term borrowed from music, it is natural to wonder what connection there may be between music and intonation."

(Bolinger 1986)

The connection between speech prosody and music introduced in the above epigraph is often remarked upon informally and arguably the most compelling parallel lies in the way each modality conveys emotion. Darwin (1871) proposed a shared evolutionary origin, and neuroimaging studies have revealed similar neural networks are recruited in their processing. However, much work is required to address the connection as systematically as it deserves.

Language is a code and words are decoded for interpretation, but a melody does not encode anything at all. Relevance Theory (Sperber & Wilson 1995) is a pragmatic theory in which communicated stimuli are interpreted inferentially. Stimuli may be linguistic but may also be natural or non-verbal. My work explores the extent to which listeners may use the same or related processes in the interpretation of music.

I use the ethological distinction between natural signs – natural communicative phenomena interpreted by inference – and natural signals, interpreted via decoding and inferential processes, to demonstrate resemblances between speech prosody and music. In verbal communication, trembling tends to convey fear. In music, it has become stylised in the vibrato technique to make music 'more emotional' (Seashore 1932). Relevance theory already offers a substantial account of the interpretation of speech prosody. In this talk I present examples that demonstrate clear parallels with music and argue that relevance theory offers insights into the interpretation of both.

## References

Bolinger, D.L. (1986). *Intonation and its parts: Melody in spoken English*. Stanford University Press.

Darwin, C. (1871). *The descent of man*. John Murray.

Seashore, C.E. (1932). *The vibrato*. University of Iowa Press.

Sperber, D. and Wilson, D. (1995). *Relevance: Communication and cognition*. Basil Blackwell.

## When music “tells time”:

### Affective meaning and temporal inference

Omayma Rezk

Capital University, Cairo

[omayma\\_abdelfattah@arts.helwan.edu.eg](mailto:omayma_abdelfattah@arts.helwan.edu.eg)

Research suggests a relation between music, affect, and time perception. The perception of music can serve as a memory-based affective cue that is tied to associative memory of time so listeners report that a certain piece of music “feels like” morning, or “feels like” night, even without any previous temporal reference. From the perspective of memory, temporal concepts are grounded in bodily states, affect, and bodily sensorimotor experiences (Barsalou, 2008; Lakoff & Johnson, 1999). I propose that music perception interacts with previously experienced time experiences by activating similar embodied temporal simulations. My study builds on an empirical foundation that music affects, and even alters, subjective time perception when both arousal and emotional valence interact, and this influences the way time is experienced (whether it passes quickly or slowly) (Droit-Volet et al., 2013). The idea is that musical cues influence the listener’s subjective experience of time in terms of temporal categories of morning, night or even seasons, which suggests that time perception is affect-dependent. If certain musical patterns/cues make temporal assumptions more salient, their interpretation aligns with the inverse relation between processing effort and cognitive effects proposed by Relevance Theory (Sperber & Wilson, 1995). Music, then, acts as a stimulus that guides interpretation rather than propositionally encodes it (Wharton, 2009), by activating embodied and memory-based temporal representations. The activation of embodied memory increases the accessibility of temporal assumptions, which are cognitively selected to achieve optimal relevance in the interpretation of music. To infer temporal meaning in music, I propose a relevance-theoretic account of affective meaning in relation to music and time perception through a pilot study that examines participants’ affective and temporal feedback on selected Egyptian music excerpts. This interdisciplinary study proposes a cognitive model that explains how temporal meaning arises from music perception and affective experiences.

### References

- Barsalou, L. W. (2008). *Grounded cognition*. *Annual Review of Psychology*, 59, 617–645.
- Droit-Volet, S., Bigand, E., Ramos, D., & Bueno, J. L. O. (2013). Time flies with music whatever its emotional valence. *Acta Psychologica*, 143(1), 11–22.  
<https://doi.org/10.1016/j.actpsy.2013.02.008>
- Lakoff, G., & Johnson, M. (1999). *Philosophy in the Flesh: The Embodied Mind and Its Challenge to Western Thought*. New York: Basic Books.
- Sperber, D., & Wilson, D. (1995). *Relevance: Communication and cognition* (2nd ed.). Blackwell.
- Wharton, T. (2009). *Pragmatics and non-verbal communication*. Cambridge University Press.  
<https://doi.org/10.1017/CBO9780511635649>

## Vocal affect, stance taking, and vigilance to speaker-related cues

Marc D. Pell

McGill University

[marc.pell@mcgill.ca](mailto:marc.pell@mcgill.ca)

Research in the affective and emotion sciences is just beginning to understand how socio-affective meaning is embedded and inferred from interpersonal contexts that involve spoken language and complex social cues. One way that affective information guides interpersonal behaviour and pragmatic language processing is by revealing the speaker's disposition or *stance* towards other people, topics of conversation, or ideas under discussion. Focusing on the voice, here I present perceptual and neurophysiological evidence showing that listeners rapidly take vocal stance into account to form impressions of the speaker and to interpret what is meant by a communicative situation in a variety of settings (e.g., when hearing ironic comments or (im)polite requests). I then highlight data on how listeners process vocal cues that mark the (un)certainty of a speaker—i.e., their expressed stance or confidence in the epistemic content of their utterance—and consider what neurocognitive mechanisms may be involved in *epistemic vigilance* during spoken language processing. The idea of epistemic vigilance to a speaker's vocal behaviour as one way of evaluating the relevance of speaker-related traits and characteristics in the communicative situation will be discussed.

### **Equivocality in vocality:**

#### **Are emotions perceived like they are expressed?**

Maël Mauchand

University of Geneva

[mael.mauchand@unige.ch](mailto:mael.mauchand@unige.ch)

In everyday communication, there is no formal way to guarantee that the emotions we attribute to our interlocutor's vocal signals, such as prosody, truly reflect their internal state. While the correspondence between intended (illocutionary) and effective (perlocutionary) meaning is a recurring challenge in speech, affective prosody lacks the semantic (locutionary) consistency of linguistic signals. Instead, emotional speakers and listeners can only rely on equivocal information, such as subtle acoustic changes, without ever confirming the efficacy of their interaction.

Experimentally, emotion communication research faces a similar issue: emotional representations are usually determined externally, either a priori (by asking participants to produce a determined emotion) or a posteriori (by categorizing vocal stimuli into perceived emotions). Both methods simply displace the problem, and evaluating perceptual responses to such stimuli boils down to comparing two perceptual representations, bypassing the genuine emotion of the speaker. Capturing the true end-to-end, encoding-to-decoding route of emotion communication requires methods considering the emotion felt, the emotion perceived, and the acoustic information mediating the two. Potential paths to close this gap can be found in the presently highlighted research across each step of the lens model of affective speech, combining acoustic, neuropsychological, developmental, and cross-cultural evidence to provide insights into the multifaceted processes facilitating (or hindering) emotional communication. Studies include developmental characterizations of infant emotional vocalizations, multi-dimensional analyses of emotive speech acts, and neuropsychological investigations comparing vocalized, subvocalized, and perceived emotions at the interpersonal level.

Overall, shared emotional and acoustic representations between speaker and listener guarantee some base alignment between encoding and decoding of vocal affective signals. On the speaker's end, the alignment is facilitated by consistency in expressing affective prosodic patterns acquired early in development. On the listener's end, it depends on familiarity with these patterns, both at the cultural and individual level. Acoustically, beyond typical emotion-related acoustic features such as pitch (F0) and loudness, listeners can access and integrate a wide range of other parameters related to voice quality, spectrum, and rhythm to form more fine-grained and complex representations of their interlocutor's affective stance. Often, however, emotion encoding and decoding exhibit partial discrepancies: certain encoded features do not affect perceptual representations, which in turn rely on cues that may not initially reflect the expressed emotion. In the brain, emotional speech representation, expression, and perception seem to involve common motor, pre-motor, and affect-related regions. This suggests forms of embodied emotion and/or empathic processing where voice affect decoding partly mirrors its encoding, with complementary involvement of higher order mentalization networks. Acoustic, cultural, and individual factors in speaker-listener alignment are also reflected across these neural processes.

Together, these findings incorporate into a pragmatic perspective of emotional expression where vocal emotional signals are not mere information capsules but interpersonal acts with an illocutionary force. Emotion communication research, just like everyday emotion communication, must involve efforts to reconcile the emotion felt, the emotion expressed, and the emotion perceived in complex interactive contexts.

## “That sounded rude. Were you ironic?”

### Emotions and ironic tone of voice

Francesca Panzeri

University of Milan - Bicocca

[francesca.panzeri@unimib.it](mailto:francesca.panzeri@unimib.it)

Ironic remarks are evaluative comments in which speakers manifest their contemptuous attitude towards the thought echoed by the remark (Wilson & Sperber, 2012) or toward the person who would be so foolish as to entertain that thought (Clark & Gerrig, 1984). This judgmental stance implies a strong affective and emotional dimension as well (Gibbs et al., 2002), and, especially in the case of sarcasm, speakers display negative emotions such as sadness, anger, disdain, disgust (Utsumi, 2000; Amenta et al., 2013), even if irony is often associated to jocularly and friendliness (Mauchand et al., 2020).

Our goal was to verify whether the typical intonational profile with which ironic remarks are pronounced encodes these negative emotions. To this aim, we collected a dataset comprising 768 audio tracks of 8 Italian-speaking adults, who uttered 24 statements in both a sincere and an ironic tone. We then used Emozionalmente (Catania et al., 2025) for the automatic detection of emotions transmitted through the vocal channel, to identify the emotions encoded in sincere and ironic remarks of our dataset. We found that ironic remarks display more disgust, more surprise, and more joy, compared to their sincere counterparts.

### References

- Amenta et al. (2013). Decoding of emotional components in complex communicative situations (irony). *Alcoholism*.
- Catania et al. (2025). Emozionalmente. *IEEE Transactions on Audio, Speech and Language Processing*.
- Clark & Gerrig (1984). On the pretense theory of irony. *JEP: General*.
- Gibbs et al. (2002). What's special about figurative language in emotional communication?. In *The verbal communication of emotions: Interdisciplinary perspectives*.
- Mauchand et al. (2020). Irony, prosody, and social impressions of affective stance. *Discourse Processes*.
- Utsumi (2000). Verbal irony as implicit display of ironic environment. *Journal of pragmatics*
- Wilson & Sperber (2012). Meaning and relevance.

## Voicing affect in simultaneous interpreting

Fabrizio Gallai<sup>1</sup> and Chara Vlachaki<sup>2</sup>

<sup>1</sup>University IULM, Milan; <sup>2</sup>University of Brighton

[fabrizio.gallai@iulm.it](mailto:fabrizio.gallai@iulm.it)

This paper investigates how prosodic features convey affect in simultaneous interpreting, arguing that affective meaning is a central component of cross-pragmatic expertise, rather than a peripheral by-product.

Drawing on Relevance Theory (Sperber & Wilson 1986/1995), the tool of affective effects (Wharton & de Saussure 2023), and the role of multimodality in interaction (Wharton & Madella 2024) our presentation follows a multimodal analysis of interpreted speech. Within this framework, affective effects are understood as systematic cognitive responses elicited by prosodic and embodied cues. Such cues operate as natural codes, engaging fast evaluative pathways while interacting with slower, propositional reasoning. This approach helps explain why non-verbal behaviours can communicate emotional stance, intensity or tension even where such meanings are difficult to paraphrase and may, at times, exceed speakers' conscious intentions.

This paper explores how prosodic, facial, and gestural cues in the source texts influence interpreters' anticipatory processing, segmentation choices, mitigation or intensification strategies, and vocal alignment. We also explore how interpreters' affective cues guide listeners' attention, trigger emotional evaluation, and shape inferential processing in real time by paying attention to how interpreters reproduce, attenuate or recalibrate affective information through their own prosodic choices. The dataset consists of a multilingual corpus from a European Parliament debate, comprising 15 speeches in five languages (German, Greek, Italian, Spanish, and Portuguese) and their English renditions. The paper contributes to interdisciplinary discussions within relevance-theoretic pragmatics and affective science by highlighting the role of prosody in the communication of affect.

### References

- Sperber, Dan, Wilson, Deirdre, 1986/1995, *Relevance: Communication and Cognition*, Harvard U.P., Cambridge (MA).
- Wharton, Tim, De Saussure, Louis, 2023, *Pragmatics and Emotion*, C.U.P., Cambridge.
- Wharton, Tim, Madella, Pauline, 2024, "Non-Verbal Communication and Context: Multimodality in Interaction", in J. Romero-Trillo (ed.), *The Cambridge Handbook of Language in Context*, C.U.P., Cambridge, pp. 419-36.

## Can affective prosody contribute to the derivation of pragmatic meanings?

### Evidence from masked speech

Nikos Vergis

Hellenic Open University

[vergis.nikolaos@ac.eap.gr](mailto:vergis.nikolaos@ac.eap.gr)

Prosody has been found to contribute significantly to the computation of pragmatic meanings such as speech acts and im/politeness (e.g., Barth-Weingarten et al. 2009, Winter et al. 2021), yet the mechanisms through which this is instantiated are debated. Some have argued that pragmatic meanings arise only through a combinatorial computation of contextual factors (e.g., Cutler 1977, Wichmann 2002), while others have provided evidence that there are unique prosodic signatures that map onto specific pragmatic meanings (e.g., Hellbernd & Sammler 2016). The present study puts forward the hypothesis that the derivation of pragmatic meanings is partly possible due to the inherent power of prosody to convey affect and affective states. In particular, I investigated im/politeness meanings by teasing apart the effect of prosody from the lexical content of the utterance. Two types of stimuli selected from a validated database of im/polite utterances were employed: unfiltered utterances (lexical content + prosody) and masked versions of the same utterances (in which only prosody was retained through low-pass filtering, and semantics was removed). Listeners (N=40) were asked to rate both types of stimuli on several scales: two scales of affectivity (valence and arousal) (Exp. 1) and a scale of im/politeness (Exp. 2). Results showed that both unfiltered and masked conditions exhibited sensitivity to valence, revealing that rude utterances were perceived as more negative than polite ones (Exp. 1). Also, listeners were able to differentiate levels of im/politeness in rude and polite utterances even when semantics was removed (Exp. 2). Multiple regressions also showed that valence predicted im/politeness, and that both gradient and categorical acoustic measures of our stimuli accounted for variance in vocal im/politeness. These results highlight the role of affective prosody in pragmatic inference and contribute to a wider discussion in the context of inferentialist and non-inferentialist approaches to meaning.

### References

- Barth-Weingarten, D., Dehé, N., & A. Wichmann (Eds) (2009), *Where Prosody Meets Pragmatics*. Bangalore: Emerald.
- Cutler, A. (1977). The context-dependence of intonational meanings. In W. Beach, S. Fox, & S. Philosoph (Eds), *Papers from the Thirteenth Regional Meeting*, Chicago Linguistic Society (pp. 104-115). Chicago, Ill.: CLS.
- Hellbernd, N., & Sammler, D. (2016). Prosody conveys speaker's intentions: Acoustic cues for speech act perception. *Journal of Memory and Language*, 88, 70-86.
- Wichmann, A. (2002). Attitudinal intonation and the inferential process. *Proceedings of Speech Prosody 2002 Conference, 11-13 April 2002*, 11-15.
- Winter, B., Oh, G. E., Hübscher, I., Idemaru, K., Brown, L., Prieto, P., & Grawunder, S. (2021). Rethinking the frequency code: a meta-analytic review of the role of acoustic body size in communicative phenomena. *Philosophical Transactions of the Royal Society B*, 376 (1840), 20200400.

I listened to *His Dark Materials* and was transported to another world:

**Audiobooks as emotional portals**

Chara Vlachaki

University of Brighton

[c.vlachaki2@brighton.ac.uk](mailto:c.vlachaki2@brighton.ac.uk)

This presentation explores the ways audiobooks impact the listener's affective states using examples from Philip Pullman's trilogy *His Dark Materials*. I claim that prosodic features through the narrator performance function as emotional cues and shape the listener's experience: in effect, the audiobook becomes an emotional portal to a vivid, immersive 'other world'. Audiobooks, hybrid, multimodal aesthetic objects are a place where audio and textual elements converge. This interplay between audio performance and text has been linked to physiological evidence of increased heart rate indicating increased cognitive and affective engagement (Richardson et al. 2018). From the perspective of relevance theory (Sperber & Wilson 1995), cognitive engagement can be understood in terms of a balanced relationship between cognitive effects and processing effort. However, the interpretation of literature often requires more effort. This can be addressed in the form of a cognitive/affective loop (Wharton & de Saussure 2023). In this presentation, I will discuss this loop by exploring interpretive resemblance in audiobooks. I argue that the narrator's performance interpretively resembles the written text aiming to convey as closely as possible what the author intended to communicate thus, guiding the audience to construct mental representations triggering an array of propositions as well as emotions and feelings. The latter has been defined as a loose use of translation (Vlachaki 2025).

**References**

- Richardson, D., Griffin, N., Zaki, L., Stephenson, A., Yan, J., Curry, T., Noble, R., J., Hogan, J., Skipper, J. & Devlin, J. (2018) Measuring narrative engagement: The heart tells the story. [preprint]  
<https://doi.org/10.1101/351148>
- Sperber, D. & Wilson, D. (1986/1995) *Relevance: Communication and cognition*. Blackwell.
- Vlachaki, C. (2025) 'Translating the ineffable in art', in F. Alves & F. Gallai (eds.) *Applications of relevance theory to translation and interpreting*. Routledge, pp. 222-242.
- Wharton, T. & Louis, de Saussure (2023) *Pragmatics and emotion*. CUP.

## Relevance and emotional prosody

Tim Wharton and Mengyang Qiu

University of Brighton

[T.Wharton@brighton.ac.uk](mailto:T.Wharton@brighton.ac.uk)

Emotional prosody is among the most salient features involved in the communication of affect. But despite extensive work on the topic, it remains unclear *what* exactly emotional prosody communicates and *how* it does so. Theories of communication tend to focus on conceptual content and downplay the role of emotions, while many theories of emotion fail to engage with theories of communication. In this talk, we revisit some of the central claims of Wilson and Wharton (2006), a systematic attempt to accommodate the many facets of prosody within the cognitive-pragmatic theory of Relevance Theory (Sperber and Wilson 1986/1995). Drawing on recent interdisciplinary research by relevance theorists and affective scientists using Appraisal Theory (Wharton et al. 2021, Dukes et al. 2021), we reconsider these claims while paying particular attention to emotional prosody.

Many researchers agree that there is something ‘natural’ about emotional prosody, that it is not part of language proper. But more subtle distinctions are required than those typically found in the literature. Wilson and Wharton (2006) claim that natural prosody falls into two broad types: *natural signs* (which are not inherently communicative and convey information by providing evidence for it) and *natural signals* (which *are* inherently communicative and convey information by encoding it). But there is a further layer of complexity, which tends to be overlooked in disciplines other than pragmatics, created by the fact that communicative stimuli are often intentionally shown (or, in relevance theory terms, used *ostensively*). Crucially, both signs and signals can function as ostensive cues and so may contribute to *overt* communication (in pragmatics ‘speaker meaning’). This can be distinguished from *covert* or even *accidental* forms of information transmission. In this talk we seek to untangle the complexities of a communicative reality that resists straightforward description.

We close our talk by introducing new proposals as to how a bridge might be built between relevance theory and affective science, in which the relevance-theoretic notion of relevance (which we call COG-Relevance) might be used to refine notions such as ‘goal’ and ‘concern’ relevance in appraisal theory. To illustrate this, and to shed more light on the interpretation of prosody, we draw on research into the tonal patterns – or *tonemes* – of Mandarin Chinese and show how prosody can contribute to the understanding of affective information beyond lexical meaning.

### References

- Dukes, D., Abrams, K., Adolphs, R., Ahmed, M. E., Beatty, A., Berridge, K. C., Broomhall, S., Brosch, T., Campos, J. J., Clay, Z., Clément, F., Cunningham, W. A., Damasio, A., Damasio, H., D’Arms, J., Davidson, J. W., de Gelder, B., Deonna, J., de Sousa, R., ..., Sander, D. (2021). The rise of affectivism. *Nature Human Behaviour*, 5(7).
- Sperber, D. & D. Wilson (1986/1995). *Relevance: Communication and cognition*. Oxford: Blackwell.
- Wharton, T., C. Bonard, D. Dukes, D. Sander & S. Oswald (2021). Relevance and emotion. *Journal of Pragmatics* 181: 259–269.
- Wharton, T. & D. Wilson (2006) Relevance and prosody. *Journal of Pragmatics*. 38: 1559-1579.