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## Hearing while feeling: Affective influences on auditory perception

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## References

- Adolphs, R. (2017a). How should neuroscience study emotions? By distinguishing emotion states, concepts, and experiences. *Social Cognitive and Affective Neuroscience*, 12(1), 24–31. <https://doi.org/10.1093/scan/nsw153>
- Adolphs, R. (2017b). Reply to Barrett: Affective neuroscience needs objective criteria for emotions. *Social Cognitive and Affective Neuroscience*, 12(1), 32–33. <https://doi.org/10.1093/scan/nsw155>
- Aeschlimann, M., Knebel, J. F., Murray, M. M., & Clarke, S. (2008). Emotional pre-eminence of human vocalizations. *Brain Topography*, 20(4), 239–248. <https://doi.org/10.1007/s10548-008-0051-8>
- Aguado, L., Pierna, M., & Saugar, C. (2005). Affective priming with associatively acquired valence. *Psicológica*, 26(2), 261–279. Retrieved from <https://eric.ed.gov/?id=EJ844427>
- Al-Abduljawad, K., Baqui, F., Langley, R., Bradshaw, C., & Szabadi, E. (2008). Effects of threat of electric shock and diazepam on the N1/P2 auditory-evoked potential elicited by low-intensity auditory stimuli. *Journal of Psychopharmacology*, 22(8), 828–835. <https://doi.org/10.1177/0269881107083843>
- Anderson, E., Siegel, E. H., & Barrett, L. F. (2011). What you feel influences what you see: The role of affective feelings in resolving binocular rivalry. *Journal of Experimental Social Psychology*, 47(4), 856–860. <https://doi.org/10.1016/j.jesp.2011.02.009>
- Anderson, K. J. (1990). Arousal and the inverted-U hypothesis: A critique of Neiss's "Reconceptualizing arousal.". *Psychological Bulletin*, 107(1), 96–100. <https://doi.org/10.1037/0033-2909.107.1.96>
- Angelucci, A., Levitt, J. B., Walton, E. J. S., Hupé, J.-M., Bullier, J., & Lund, J. S. (2002). Circuits for local and global signal integration in primary visual cortex. *The Journal of Neuroscience*, 22(19), 8633–8646. <https://doi.org/10.1523/jneurosci.22-19-08633.2002>
- ANSI. (1994). *American national standard acoustical terminology* (ANSI standard No. S1.1-1994). New York, NY: American National Standards Institute.
- Aron, E. N., & Aron, A. (1997). Sensory-processing sensitivity and its relation to introversion and emotionality. *Journal of Personality and Social Psychology*, 73(2), 345–368. <https://doi.org/10.1037/0022-3514.73.2.345>
- Aron, E. N., Aron, A., & Jagiellowicz, J. (2012). Sensory processing sensitivity: A review in the light of the evolution of biological responsivity. *Personality and Social Psychology Review*, 16(3), 262–282. <https://doi.org/10.1177/1088868311434213>
- ASA. (1960). *Acoustical terminology* (ASA standard No. SI 1-1960). New York, NY: American Standards Association.

## References

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- Ashby, F. G., Isen, A. M., & Turken, A. (1999). A neuropsychological theory of positive affect and its influence on cognition. *Psychological Review*, 106(3), 529–550. <https://doi.org/10.1037/0033-295x.106.3.529>
- Aston-Jones, G., & Cohen, J. D. (2005). An integrative theory of locus coeruleus-norepinephrine function: Adaptive gain and optimal performance. *Annual Review of Neuroscience*, 28(1), 403–450. <https://doi.org/10.1146/annurev.neuro.28.061604.135709>
- Aston-Jones, G., Rajkowski, J., & Cohen, J. (1999). Role of locus coeruleus in attention and behavioral flexibility. *Biological Psychiatry*, 46(9), 1309–1320. [https://doi.org/10.1016/S0006-3223\(99\)00140-7](https://doi.org/10.1016/S0006-3223(99)00140-7)
- Aston-Jones, G., Rajkowski, J., Kubiak, P., Valentino, R. J., & Shipley, M. T. (1996). Role of the locus coeruleus in emotional activation. *Progress in Brain Research*, 107, 379–402. [https://doi.org/10.1016/S0079-6123\(08\)61877-4](https://doi.org/10.1016/S0079-6123(08)61877-4)
- Asutay, E., & Västfjäll, D. (2012). Perception of loudness is influenced by emotion. *PLoS ONE*, 7(6), 1–5. <https://doi.org/10.1371/journal.pone.0038660>
- Asutay, E., & Västfjäll, D. (2015). Attentional and emotional prioritization of the sounds occurring outside the visual field. *Emotion*, 15(3), 281–286. <https://doi.org/10.1037/emo0000045>
- Baas, J. M. P., Milstein, J., Donlevy, M., & Grillon, C. (2006). Brainstem correlates of defensive states in humans. *Biological Psychiatry*, 59(7), 588–593. <https://doi.org/10.1016/j.biopsych.2005.09.009>
- Bachem, A. (1950). Tone height and tone chroma as two different pitch qualities. *Acta Psychologica*, 7, 80–88. [https://doi.org/10.1016/0001-6918\(50\)90004-7](https://doi.org/10.1016/0001-6918(50)90004-7)
- Bachman, J. G., & O’Malley, P. M. (1984). Yea-saying, nay-saying, and going to extremes: Black- white differences in response styles. *Public Opinion Quarterly*, 48(2), 491–509. <https://doi.org/10.1086/268845>
- Baeyens, F., Crombez, G., Van den Bergh, O., & Eelen, P. (1988). Once in contact always in contact: Evaluative conditioning is resistant to extinction. *Advances in Behaviour Research and Therapy*, 10(4), 179–199. [https://doi.org/10.1016/0146-6402\(88\)90014-8](https://doi.org/10.1016/0146-6402(88)90014-8)
- Baeyens, F., Díaz, E., & Ruiz, G. a. (2005). Resistance to extinction of human evaluative conditioning using a between-subjects design. *Cognition & Emotion*, 19(2), 245–268. <https://doi.org/10.1080/02699930441000300>
- Baeyens, F., Eelen, P., Crombez, G., & van den Bergh, O. (1992). Human evaluative conditioning: Acquisition trials, presentation schedule, evaluative style and contingency awareness. *Behaviour Research and Therapy*, 30(2), 133–142. [https://doi.org/10.1016/0005-7967\(92\)90136-5](https://doi.org/10.1016/0005-7967(92)90136-5)
- Baeyens, F., Eelen, P., Van den Bergh, O., & Crombez, G. (1990). Flavor-flavor and color-flavor conditioning in humans. *Learning and Motivation*, 21(4), 434–455. [https://doi.org/10.1016/0023-9690\(90\)90025-J](https://doi.org/10.1016/0023-9690(90)90025-J)
- Baeyens, F., Vansteenkiste, D., & Hermans, D. (2009). Associative learning requires associations, not propositions. *Behavioral and Brain Sciences*, 32(2), 198–199. <https://doi.org/10.1017/S0140525X09000867>
- Banse, R., & Scherer, K. R. (1996). Acoustic profiles in vocal emotion expression. *Journal of Personality and Social Psychology*, 70(3), 614–636. <https://doi.org/10.1037/0022-3514.70.3.614>
- Bänziger, T., & Scherer, K. R. (2005). The role of intonation in emotional expressions. *Speech Communication*, 46(3), 252–267. <https://doi.org/10.1016/j.specom.2005.02.016>
- Bargh, J. A., Chaiken, S., Raymond, P., & Hymes, C. (1996). The automatic evaluation effect: Unconditional automatic attitude activation with a pronunciation task. *Journal of*

- Experimental Social Psychology*, 32(1), 104–128. <https://doi.org/10.1006/jesp.1996.0005>
- Barrett, L. F. (2006). Solving the emotion paradox: Categorization and the experience of emotion. *Personality and Social Psychology Review*, 10(1), 20–46. [https://doi.org/10.1207/s15327957pspr1001\\_2](https://doi.org/10.1207/s15327957pspr1001_2)
- Barrett, L. F. (2017a). Functionalism cannot save the classical view of emotion. *Social Cognitive and Affective Neuroscience*, 12(1), 34–36. <https://doi.org/10.1093/scan/nsw156>
- Barrett, L. F. (2017b). The theory of constructed emotion: an active inference account of interoception and categorization. *Social Cognitive and Affective Neuroscience*, 12(1), 1–23. <https://doi.org/10.1093/scan/nsw154>
- Barrett, L. F., & Bar, M. (2009). See it with feeling: affective predictions during object perception. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 364(1521), 1325–1334. <https://doi.org/10.1098/rstb.2008.0312>
- Barrett, L. F., & Bliss-Moreau, E. (2009). Affect as a psychological primitive. *Advances in Experimental Social Psychology*, 41, 167–218. [https://doi.org/10.1016/S0065-2601\(08\)00404-8](https://doi.org/10.1016/S0065-2601(08)00404-8)
- Bartels, S., Márki, F., & Müller, U. (2015). The influence of acoustical and non-acoustical factors on short-term annoyance due to aircraft noise in the field – the COSMA study. *Science of The Total Environment*, 538, 834–843. <https://doi.org/10.1016/j.scitotenv.2015.08.064>
- Baumgartner, H., & Steenkamp, J.-B. E. M. (2001). Response styles in marketing research: A cross-national investigation. *Journal of Marketing Research*, 38(2), 143–156. <https://doi.org/10.1509/jmkr.38.2.143.18840>
- Beck, D. M., & Clevenger, J. (2016). The folly of boxology. *Behavioral and Brain Sciences*, 39, e231. <https://doi.org/10.1017/S0140525X15002630>
- Beck, D. M., & Kastner, S. (2009). Top-down and bottom-up mechanisms in biasing competition in the human brain. *Vision Research*, 49(10), 1154–1165. <https://doi.org/10.1016/j.visres.2008.07.012>
- Becker, M. W., & Leinenger, M. (2011). Attentional selection is biased toward mood-congruent stimuli. *Emotion*, 11(5), 1248–1254. <https://doi.org/10.1037/a0023524>
- Beedie, C., Terry, P., & Lane, A. (2005). Distinctions between emotion and mood. *Cognition and Emotion*, 19(6), 847–878. <https://doi.org/10.1080/02699930541000057>
- Beevers, C. G., & Carver, C. S. (2003). Attentional bias and mood persistence as prospective predictors of dysphoria. *Cognitive Therapy & Research*, 27(6), 619–637. <https://doi.org/10.1023/A:1026347610928>
- Bendor, D., Osmanski, M. S., & Wang, X. (2012). Dual-pitch processing mechanisms in primate auditory cortex. *The Journal of Neuroscience*, 32(46), 16149–16161. <https://doi.org/10.1523/jneurosci.2563-12.2012>
- Berglund, B., Lindvall, T., & Schwela, D. H. (2000). New WHO guidelines for community noise. *Noise & Vibration Worldwide*, 31(4), 24–29. <https://doi.org/10.1260/0957456001497535>
- Berridge, C. W., & Waterhouse, B. D. (2003). The locus coeruleus-noradrenergic system: Modulation of behavioral state and state-dependent cognitive processes. *Brain Research Reviews*, 42(1), 33–84. [https://doi.org/10.1016/S0165-0173\(03\)00143-7](https://doi.org/10.1016/S0165-0173(03)00143-7)
- Bhalla, M., & Proffitt, D. R. (1999). Visual-motor recalibration in geographical slant perception. *Journal of Experimental Psychology: Human Perception and Performance*, 25(4), 1076–1096. <https://doi.org/10.1037/0096-1523.25.4.1076>
- Bliss-Moreau, E., Owren, M. J., & Barrett, L. F. (2010). I like the sound of your voice: Affective learning about vocal signals. *Journal of Experimental Social Psychology*, 46(3), 557–563. <https://doi.org/doi.org/10.1016/j.jesp.2009.12.017>

## References

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- Bocanegra, B. R., & Zeelenberg, R. (2009). Emotion improves and impairs early vision. *Psychological Science*, 20(6), 707–713. <https://doi.org/10.1111/j.1467-9280.2009.02354.x>
- Boksem, M. A., Tops, M., Kostermans, E., & De Cremer, D. (2008). Sensitivity to punishment and reward omission: Evidence from error-related ERP components. *Biological Psychology*, 79(2), 185–192. <https://doi.org/10.1016/j.biopsycho.2008.04.010>
- Boksem, M. A., Tops, M., Wester, A. E., Meijman, T. F., & Lorist, M. M. (2006). Error-related ERP components and individual differences in punishment and reward sensitivity. *Brain Research*, 1101(1), 92–101. <https://doi.org/10.1016/j.brainres.2006.05.004>
- Bolders, A. C., Band, G. P., & Stallen, P. J. M. (2012). Evaluative conditioning induces changes in sound valence. *Frontiers in Psychology*, 3. <https://doi.org/10.3389/fpsyg.2012.00106>
- Bolders, A. C., Band, G. P. H., & Stallen, P. J. M. (2017). Inconsistent effect of arousal on early auditory perception. *Frontiers in Psychology*, 8. <https://doi.org/10.3389/fpsyg.2017.00447>
- Bolders, A. C., Tops, M., Band, G. P. H., & Stallen, P. J. M. (2017). Perceptual sensitivity and response to strong stimuli are related. *Frontiers in Psychology*, 8. <https://doi.org/10.3389/fpsyg.2017.01642>
- Bolles, R. C., Hulicka, I. M., & Hanly, B. (1959). Colour judgment as a function of stimulus conditions and memory colour. *Canadian Journal of Psychology/Revue canadienne de psychologie*, 13(3), 175–185. <https://doi.org/10.1037/h0083774>
- Bornschein, S., Hausteiner, C., Zilker, T., & Förstl, H. (2002). Psychiatric and somatic disorders and multiple chemical sensitivity (MCS) in 264 ‘environmental patients’. *Psychological Medicine*, 32(08), 1387–1394. <https://doi.org/10.1017/S0033291702006554>
- Borra, T., Versnel, H., Kemner, C., van Opstal, A. J., & van Ee, R. (2013). Octave effect in auditory attention. *Proceedings of the National Academy of Sciences*, 110(38), 15225–15230. <https://doi.org/10.1073/pnas.1213756110>
- Bosker, H. R. (2018). Putting Laurel and Yanny in context. *The Journal of the Acoustical Society of America*, 144(6), EL503–EL508. <https://doi.org/10.1121/1.5070144>
- Bowen, M., Terreros, G., Moreno-Gómez, F. N., Ipinza, M., Vicencio, S., Robles, L., & Delano, P. H. (2020). The olivocochlear reflex strength in awake chinchillas is relevant for behavioural performance during visual selective attention with auditory distractors. *Scientific Reports*, 10(1), 1–11. <https://doi.org/10.1038/s41598-020-71399-8>
- Bower, G. H. (1981). Mood and memory. *American Psychologist*, 36(2), 129–148. <https://doi.org/10.1037/0003-066x.36.2.129>
- Bower, G. H., &Forgas, J. P. (2000). Affect, memory, and social cognition. In E. Eich, J. F. Kihlstrom, G. H. Bower, J. P. Forgas, & P. M. Niedenthal (Eds.), *Cognition and emotion* (pp. 87–168). New York, NY: Oxford University Press.
- Bradley, M. M., & Lang, P. (2007). *The International Affective Digitized Sounds (2nd edition; IADS-2): Affective ratings of sounds and instruction manual* (Technical Report No. B-3). University of Florida, Gainesville, FL.
- Bradley, M. M., & Lang, P. J. (1994). Measuring emotion: The self-assessment manikin and the semantic differential. *Journal of Behavior Therapy and Experimental Psychiatry*, 25(1), 49–59. [https://doi.org/10.1016/0005-7916\(94\)90063-9](https://doi.org/10.1016/0005-7916(94)90063-9)
- Brandt, M. J., Ijzerman, H., Dijksterhuis, A., Farach, F. J., Geller, J., Giner-Sorolla, R., ... van 't Veer, A. (2014). The replication recipe: What makes for a convincing replication? *Journal of Experimental Social Psychology*, 50, 217–224. <https://doi.org/10.1016/j.jesp.2013.10.005>
- Broadbent, D. E. (1958). *Perception and communication*. Oxford, England: Pergamon Press.

- Brogaard, B., & Gatzia, D. (2015). Is the auditory system cognitively penetrable? *Frontiers in Psychology*, 6. <https://doi.org/10.3389/fpsyg.2015.01166>
- Bruner, J. S. (1992). Another look at New Look 1. *American Psychologist*, 47(6), 780–783. <https://doi.org/10.1037/0003-066X.47.6.780>
- Bruner, J. S., & Goodman, C. C. (1947). Value and need as organizing factors in perception. *The Journal of Abnormal and Social Psychology*, 42(1), 33–44. <https://doi.org/10.1037/h0058484>
- Burns, E. M., & Viemeister, N. F. (1976). Nonspectral pitch. *The Journal of the Acoustical Society of America*, 60(4), 863–869. <https://doi.org/10.1121/1.381166>
- Burns, E. M., & Viemeister, N. F. (1981). Played-again SAM: Further observations on the pitch of amplitude-modulated noise. *The Journal of the Acoustical Society of America*, 70(6), 1655–1660. <https://doi.org/10.1121/1.387220>
- Canli, T., Zhao, Z., Desmond, J. E., Kang, E., Gross, J., & Gabrieli, J. D. E. (2001). An fMRI study of personality influences on brain reactivity to emotional stimuli. *Behavioral Neuroscience*, 115(1), 33–42. <https://doi.org/10.1037/0735-7044.115.1.33>
- Carlyon, R. P. (1998). Comments on “A unitary model of pitch perception” [J. Acoust. Soc. Am. 102, 1811–1820 (1997)]. *The Journal of the Acoustical Society of America*, 104(2), 1118–1121. <https://doi.org/10.1121/1.423319>
- Carlyon, R. P., & Gockel, H. (2008). Effects of harmonicity and regularity on the perception of sound sources. In W. Yost, A. Popper, & R. Fay (Eds.), *Auditory perception of sound sources*. (pp. 191–213). Boston, MA: Springer.
- Carrasco, M. (2011). Visual attention: The past 25 years. *Vision Research*, 51(13), 1484–1525. <https://doi.org/10.1016/j.visres.2011.04.012>
- Cataldo, A. M., & Cohen, A. L. (2015). The effect of emotional state on visual detection: A signal detection analysis. *Emotion*, 15(6), 846–853. <https://doi.org/10.1037/emo0000091>
- Cave, K. R., & Batty, M. J. (2006). From searching for features to searching for threat: Drawing the boundary between preattentive and attentive vision. *Visual Cognition*, 14(4), 629–646. <https://doi.org/10.1080/13506280500193107>
- Cecchi, A. S. (2014). *Modularity, cognitive penetration and perceptual justification* (Doctoral dissertation). <https://doi.org/10.13097/archive-ouverte/unige:44996>
- Cecchi, A. S. (2018). Cognitive penetration of early vision in face perception. *Consciousness and Cognition*, 63, 254–266. <https://doi.org/10.1016/j.concog.2018.06.005>
- Chambers, C., Akram, S., Adam, V., Pelofi, C., Sahani, M., Shamma, S., & Pressnitzer, D. (2017). Prior context in audition informs binding and shapes simple features. *Nature Communications*, 8(1), 15027. <https://doi.org/10.1038/ncomms15027>
- Chanes, L., & Barrett, L. F. (2016). Redefining the role of limbic areas in cortical processing. *Trends in Cognitive Sciences*, 20(2), 96–106. <https://doi.org/10.1016/j.tics.2015.11.005>
- Charland, L. (2009). Affect (philosophical perspectives). In D. Sander & K. R. Scherer (Eds.), *The Oxford companion to emotion and the affective sciences* (pp. 9–10). New York, NY: Oxford University Press.
- Christison-Lagay, K. L., Bennur, S., & Cohen, Y. E. (2017). Contribution of spiking activity in the primary auditory cortex to detection in noise. *Journal of Neurophysiology*, 118(6), 3118–3131. <https://doi.org/10.1152/jn.00521.2017>
- Clark, A. (2013). Whatever next? Predictive brains, situated agents, and the future of cognitive science. *Behavioral and Brain Sciences*, 36(3), 181–204. <https://doi.org/10.1017/S0140525X12000477>
- Clark, A. (2016). Attention alters predictive processing. *Behavioral and Brain Sciences*, 39. <https://doi.org/10.1017/S0140525X15002472>

## References

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- Clayton, E. C., Rajkowski, J., Cohen, J. D., & Aston-Jones, G. (2004). Phasic activation of monkey locus ceruleus neurons by simple decisions in a forced-choice task. *The Journal of Neuroscience*, 24(44), 9914–9920. <https://doi.org/10.1523/jneurosci.2446-04.2004>
- Cloninger, C., Svrakic, D. M., & Przybeck, T. R. (1993). A psychobiological model of temperament and character. *Archives of General Psychiatry*, 50(12), 975–990. <https://doi.org/10.1001/archpsyc.1993.01820240059008>
- Clopton, B. M., Winfield, J. A., & Flammino, F. J. (1974). Tonotopic organization: Review and analysis. *Brain Research*, 76(1), 1–20. [https://doi.org/10.1016/0006-8993\(74\)90509-5](https://doi.org/10.1016/0006-8993(74)90509-5)
- Clore, G. L., & Robinson, M. D. (2012). Five new ideas about emotion and their implications for social-personality. In K. Deaux & M. Snyder (Eds.), *The Oxford handbook of personality and social psychology* (pp. 315–336). New York, NY: Oxford University Press.
- Clore, G. L., & Robinson, M. D. (2018). Five questions about emotion: Implications for social-personality psychology. In K. Deaux & M. Snyder (Eds.), *The Oxford handbook of personality and social psychology* (2nd ed., pp. 365–386). New York, NY: Oxford University Press.
- Collier, W., & Hubbard, T. (2001). Judgments of happiness, brightness, speed and tempo change of auditory stimuli varying in pitch and tempo. *Psychomusicology*, 17, 36–55. <https://doi.org/10.1037/h0094060>
- Corr, P. J. (2004). Reinforcement sensitivity theory and personality. *Neuroscience & Biobehavioral Reviews*, 28(3), 317–332. <https://doi.org/10.1016/j.neubiorev.2004.01.005>
- Cosmides, L., & Tooby, J. (2000). Evolutionary psychology and the emotions. In M. Lewis & M. Haviland-Jones (Eds.), *Handbook of emotions* (Vol. 2, pp. 91–115). New York, NY: Guilford Press.
- Costa, P. T., & McCrae, R. R. (1992). Normal personality assessment in clinical practice: The NEO personality inventory. *Psychological Assessment*, 4(1), 5–13. <https://doi.org/10.1037/1040-3590.4.1.5>
- Crawford, L. E. (2009). Conceptual metaphors of affect. *Emotion Review*, 1(2), 129–139. <https://doi.org/10.1177/1754073908100438>
- Crichton, F., Dodd, G., Schmid, G., & Petrie, K. J. (2015). Framing sound: Using expectations to reduce environmental noise annoyance. *Environmental Research*, 142, 609–614. <https://doi.org/10.1016/j.envres.2015.08.016>
- Crivelli, C., & Fridlund, A. J. (2019). Inside-out: From basic emotions theory to the behavioral ecology view. *Journal of Nonverbal Behavior*, 43(2), 161–194. <https://doi.org/10.1007/s10919-019-00294-2>
- Cruttenden, A. (1997). *Intonation*. Cambridge, UK: Cambridge University Press.
- Dalton, P. (1996). Odor perception and beliefs about risk. *Chemical Senses*, 21(4), 447–458. <https://doi.org/10.1093/chemse/21.4.447>
- Darwin, C. (2005). Overview: The present and future of pitch. In C. Plack, R. Fay, A. Oxenham, & A. Popper (Eds.), *Pitch: Neural coding and perception* (pp. 278–305). New York, NY: Springer.
- de Cheveigné, A. (2005). Pitch perception models. In C. J. Plack, R. R. Fay, A. J. Oxenham, & A. N. Popper (Eds.), *Pitch: Neural coding and perception* (pp. 169–233). New York, NY: Springer.
- De Houwer, J. (2003). A structural analysis of indirect measures of attitudes. In J. Musch & K. C. Klauer (Eds.), *The psychology of evaluation. affective processes in cognition and emotion* (pp. 219–244). Mahwah, New Jersey: Lawrence Erlbaum Associates.
- De Houwer, J. (2006). What are implicit measures and why are we using them. In R. W. Wiers & A. W. Stacy (Eds.), *The handbook of implicit cognition and addiction* (pp. 11–28).

- Thousand Oaks, CA: Sage Publishers.
- De Houwer, J. (2007). A conceptual and theoretical analysis of evaluative conditioning. *The Spanish Journal of Psychology, 10*(2), 230–241. <https://doi.org/10.1017/S1138741600006491>
- De Houwer, J. (2008). Conditioning as a source of liking: There is nothing simple about it. In M. Wänke (Ed.), *Frontiers of social psychology: Social psychology of consumer behavior* (pp. 151–166). New York: Psychology Press.
- De Houwer, J., Baeyens, F., & Field, A. (2005). Associative learning of likes and dislikes: Some current controversies and possible ways forward. *Cognition & Emotion, 19*(2), 161–174. <https://doi.org/10.1080/02699930441000265>
- De Houwer, J., Teige-Mocigemba, S., Spruyt, A., & Moors, A. (2009). Implicit measures: A normative analysis and review. *Psychological Bulletin, 135*(3), 347–368. <https://doi.org/10.1037/a0014211>
- De Houwer, J., Thomas, S., & Baeyens, F. (2001). Associative learning of likes and dislikes: A review of 25 years of research on human evaluative conditioning. *Psychological Bulletin, 127*(6), 853–869. <https://doi.org/10.1037/0033-2909.127.6.853>
- de Ruiter, M. B., Elzinga, B. M., & Phaf, R. H. (2006). Dissociation: Cognitive capacity or dysfunction? *Journal of Trauma & Dissociation, 7*(4), 115–134. [https://doi.org/10.1300/J229v07n04\\_07](https://doi.org/10.1300/J229v07n04_07)
- de Ruiter, M. B., Phaf, R. H., Veltman, D. J., Kok, A., & van Dyck, R. (2003). Attention as a characteristic of nonclinical dissociation: an event-related potential study. *NeuroImage, 19*(2), 376–390. [https://doi.org/10.1016/S1053-8119\(03\)00099-5](https://doi.org/10.1016/S1053-8119(03)00099-5)
- Dean, I., Harper, N. S., & McAlpine, D. (2005). Neural population coding of sound level adapts to stimulus statistics. *Nature Neuroscience, 8*(12), 1684–1689. <https://doi.org/10.1038/nn1541>
- de Gelder, B., & Vroomen, J. (2000). The perception of emotions by ear and by eye. *Cognition & Emotion, 14*(3), 289–311. <https://doi.org/10.1080/026999300378824>
- Degner, J. (2008). On the (un-)controllability of affective priming: Strategic manipulation is feasible but can possibly be prevented. *Cognition & Emotion, 23*(2), 327–354. <https://doi.org/10.1080/02699930801993924>
- Delano, P. H., & Elgoyhen, A. B. (2016). Editorial: Auditory efferent system: New insights from cortex to cochlea. *Frontiers in Systems Neuroscience, 10*. <https://doi.org/10.3389/fnsys.2016.00050>
- Delano, P. H., Elgueda, D., Hamame, C. M., & Robles, L. (2007). Selective attention to visual stimuli reduces cochlear sensitivity in chinchillas. *Journal of Neuroscience, 27*(15), 4146–4153. <https://doi.org/10.1523/JNEUROSCI.3702-06.2007>
- Delgutte, B. (1990). Physiological mechanisms of psychophysical masking: Observations from auditory-nerve fibers. *The Journal of the Acoustical Society of America, 87*(2), 791–809. <https://doi.org/10.1121/1.398891>
- Derryberry, D., & Rothbart, M. K. (1988). Arousal, affect, and attention as components of temperament. *Journal of Personality and Social Psychology, 55*(6), 958–966. <https://doi.org/10.1037/0022-3514.55.6.958>
- Derryberry, D., & Tucker, D. M. (1994). Motivating the focus of attention. In P. Niedenthal & S. Kitayama (Eds.), *The heart's eye emotional influences in perception and attention* (pp. 167–196). San Diego: Academic Press.
- Desimone, R., & Duncan, J. (1995). Neural mechanisms of selective visual attention. *Annual Review of Neuroscience, 18*(1), 193–222. <https://doi.org/10.1146/annurev.ne.18.030195.001205>

## References

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- Deutsch, J. A., & Deutsch, D. (1963). Attention: Some theoretical considerations. *Psychological Review*, 70(1), 80–90. <https://doi.org/10.1037/h0039515>
- Devilbiss, D. M. (2019). Consequences of tuning network function by tonic and phasic locus ceruleus output and stress: Regulating detection and discrimination of peripheral stimuli. *Brain Research*, 1709, 16–27. <https://doi.org/10.1016/j.brainres.2018.06.015>
- Devilbiss, D. M., & Waterhouse, B. D. (2004). The effects of tonic locus ceruleus output on sensory-evoked responses of ventral posterior medial thalamic and barrel field cortical neurons in the awake rat. *The Journal of Neuroscience*, 24(48), 10773–10785. <https://doi.org/10.1523/jneurosci.1573-04.2004>
- Devinsky, O., Morrell, M. J., & Vogt, B. A. (1995). Contributions of anterior cingulate cortex to behaviour. *Brain*, 118(1), 279–306. <https://doi.org/10.1093/brain/118.1.279>
- Duncan, J. (2006). EPS mid-career award 2004: Brain mechanisms of attention. *The Quarterly Journal of Experimental Psychology*, 59(1), 2–27. <https://doi.org/10.1080/17470210500260674>
- Dunning, D., & Balcetis, E. (2013). Wishful seeing: How preferences shape visual perception. *Current Directions in Psychological Science*, 22(1), 33–37. <https://doi.org/10.1177/0963721412463693>
- Easterbrook, J. A. (1959). The effect of emotion on cue utilization and the organization of behavior. *Psychological Review*, 66(3), 183–201. <https://doi.org/10.1037/h0047707>
- Edeline, J.-M., Manunta, Y., & Hennevin, E. (2011). Induction of selective plasticity in the frequency tuning of auditory cortex and auditory thalamus neurons by locus ceruleus stimulation. *Hearing Research*, 274(1-2), 75–84. <https://doi.org/10.1016/j.heares.2010.08.005>
- Eder, A. B., & Rothermund, K. (2008). When do motor behaviors (mis)match affective stimuli? An evaluative coding view of approach and avoidance reactions. *Journal of Experimental Psychology: General*, 137(2), 262–281. <https://doi.org/10.1037/0096-3445.137.2.262>
- Edman, G., Schalling, D., & Rissler, A. (1979). Interaction effects of extraversion and neuroticism on detection thresholds. *Biological Psychology*, 9(1), 41–47. [https://doi.org/10.1016/0301-0511\(79\)90021-8](https://doi.org/10.1016/0301-0511(79)90021-8)
- Eich, E., Ng, J., Macaulay, D., Percy, A., & Grebneva, I. (2007). Combining music with thought to change mood. In J. Coan & J. B. Allen (Eds.), *Handbook of emotion elicitation and assessment* (pp. 124–136). New York, NY: Oxford University Press.
- Ekman, P. (1994). Moods, emotions, and traits. In P. Ekman & R. J. Davidson (Eds.), *The nature of emotion: Fundamental questions* (pp. 56–58). New York, NY: Oxford University Press.
- Ekman, P. (2003). *Emotions revealed: recognizing faces and feelings to improve communication and emotional life*. New York, NY: Times Books/Henry Holt and Co.
- Ekman, P., & Cordaro, D. (2011). What is meant by calling emotions basic. *Emotion Review*, 3(4), 364–370. <https://doi.org/10.1177/1754073911410740>
- Elberling, C., Bak, C., Kofoed, B., Lebech, J., & Sermack, K. (1982). Auditory magnetic fields: Source location and ‘tonotopical organization’ in the right hemisphere of the human brain. *Scandinavian Audiology*, 11(1), 61–65. <https://doi.org/10.3109/01050398209076201>
- Ellermeier, W., Eigenstetter, M., & Zimmer, K. (2001). Psychoacoustic correlates of individual noise sensitivity. *The Journal of the Acoustical Society of America*, 109(4), 1464–1473. <https://doi.org/10.1121/1.1350402>
- Erdelyi, M. H. (1974). A new look at the New Look: Perceptual defense and vigilance. *Psychological Review*, 81(1), 1–25. <https://doi.org/10.1037/h0035852>

- Evans, D. E., & Rothbart, M. K. (2007). Developing a model for adult temperament. *Journal of Research in Personality*, 41(4), 868–888. <https://doi.org/10.1016/j.jrp.2006.11.002>
- Evans, D. E., & Rothbart, M. K. (2008). Temperamental sensitivity: Two constructs or one? *Personality and Individual Differences*, 44(1), 108–118. <https://doi.org/10.1016/j.paid.2007.07.016>
- Eysenck, H. J. (1967). *The biological basis of personality*. Springfield, IL: Charles C. Thomas.
- Eysenck, H. J., & Eysenck, S. B. G. (1975). *EPQ (Eysenck Personality Questionnaire)*. Educational and Industrial Testing Service.
- Fabiani, M., Kazmerski, V. A., Cycowicz, Y., & Friedman, D. D. (1996). Naming norms for brief environmental sounds: Effects of age and dementia. *Psychophysiology*, 33, 462–475. <https://doi.org/10.1111/j.1469-8986.1996.tb01072.x>
- Fant, G. (1960). *Acoustic theory of speech production*. The Hague, The Netherlands: Mouton.
- Fastl, H. (2001). Neutralizing the meaning of sound for sound quality evaluations. In *Proceedings of the 17th International Congress on Acoustics*. Retrieved from [http://www.icacommission.org/Proceedings/ICA2001Rome/8\\_10.pdf](http://www.icacommission.org/Proceedings/ICA2001Rome/8_10.pdf)
- Fastl, H., Menzel, D., & Krause, M. (2006). Loudness thermometer: evidence for cognitive effects? [DVD]. In *Proceedings of the 35th international congress and exposition on noise control engineering*. Washington, DC: The Institute of Noise Control Engineering of the USA.
- Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G\*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, 39(2), 175–191. <https://doi.org/10.3758/bf03193146>
- Fazio, R. H., & Olson, M. A. (2003). Implicit measures in social cognition research: Their meaning and use. *Annual Review of Psychology*, 54(1), 297–327. <https://doi.org/doi:10.1146/annurev.psych.54.101601.145225>
- Feldman, H., & Friston, K. (2010). Attention, uncertainty, and free-energy. *Frontiers in Human Neuroscience*, 4. <https://doi.org/10.3389/fnhum.2010.00215>
- Felix, R. A., II, Gourévitch, B., & Portfors, C. V. (2018). Subcortical pathways: Towards a better understanding of auditory disorders. *Hearing Research*, 362, 48–60. <https://doi.org/10.1016/j.heares.2018.01.008>
- Feyerabend, P. (1962). Explanation, reduction and empiricism. In H. Feigl & M. G. (Eds.), *Minnesota studies in philosophy of science* (Vol. 3, pp. 28–97). Minneapolis, MN: University of Minnesota Press.
- Field, A. P. (2005). Learning to like (or dislike): Associative learning of preferences. In A. J. Wills (Ed.), *New directions in human associative learning* (pp. 221–252). Mahwah: New Jersey: Lawrence Erlbaum Associates.
- Firestone, C., & Scholl, B. J. (2016). Cognition does not affect perception: Evaluating the evidence for “top-down” effects. *Behavioral and Brain Sciences*, 39, e229. <https://doi.org/10.1017/S0140525X15000965>
- Fletcher, H., & Munson, W. A. (1933). Loudness, its definition, measurement and calculation\*. *Bell System Technical Journal*, 12(4), 377–430. <https://doi.org/10.1002/j.1538-7305.1933.tb00403.x>
- Fodor, J. A. (1983). *The modularity of mind: An essay on faculty psychology*. Cambridge, MA: MIT press.
- Fontaine, J. (2009). Dimensional emotion models. In D. Sander & K. R. Scherer (Eds.), *The Oxford companion to emotion and the affective sciences* (pp. 119–120). New York, NY: Oxford University Press.

## References

---

- Formisano, E., Kim, D.-S., Di Salle, F., van de Moortele, P.-F., Ugurbil, K., & Goebel, R. (2003). Mirror-symmetric tonotopic maps in human primary auditory cortex. *Neuron*, 40(4), 859–869. [https://doi.org/10.1016/S0896-6273\(03\)00669-X](https://doi.org/10.1016/S0896-6273(03)00669-X)
- Forstmann, B., Ratcliff, R., & Wagenmakers, E.-J. (2016). Sequential sampling models in cognitive neuroscience: Advantages, applications, and extensions. *Annual Review of Psychology*, 67(1), 641–666. <https://doi.org/10.1146/annurev-psych-122414-033645>
- Fox, E. (2008). *Emotion science cognitive and neuroscientific approaches to understanding human emotions*. New York, NY: Palgrave Macmillan.
- Fox, E. (2018). Perspectives from affective science on understanding the nature of emotion. *Brain and Neuroscience Advances*, 2. <https://doi.org/10.1177/2398212818812628>
- Fredrickson, B. L. (2004). The broaden-and-build theory of positive emotions. *Philosophical Transactions of the Royal Society of London. Series B: Biological Sciences*, 359(1449), 1367–1377. <https://doi.org/10.1098/rstb.2004.1512>
- Fredrickson, B. L., & Branigan, C. (2005). Positive emotions broaden the scope of attention and thought-action repertoires. *Cognition & Emotion*, 19(3), 313–332. <https://doi.org/10.1080/02699930441000238>
- Friedman, R. S., Neill, W. T., Seror, G. A., & Kleinsmith, A. L. (2018). Average pitch height and perceived emotional expression within an unconventional tuning system. *Music Perception: An Interdisciplinary Journal*, 35(4), 518–523. <https://doi.org/10.1525/mp.2018.35.4.518>
- Frijda, N. H. (1993). Moods, emotion episodes, and emotions. In M. Lewis & J. M. Haviland (Eds.), *Handbook of emotions*. (pp. 381–403). New York, NY: Guilford Press.
- Frijda, N. H. (2009). Mood. In D. Sander & K. R. Scherer (Eds.), *The Oxford companion to emotion and the affective sciences* (pp. 258–259). New York, NY: Oxford University Press.
- Frijda, N. H., & Scherer, K. R. (2009). Affect (psychological perspectives). In D. Sander & K. R. Scherer (Eds.), *The Oxford companion to emotion and the affective sciences* (p. 10). New York, NY: Oxford University Press.
- Friston, K. (2005). A theory of cortical responses. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 360(1465), 815–836. <https://doi.org/10.1098/rstb.2005.1622>
- Friston, K. (2010). The free-energy principle: a unified brain theory? *Nature Reviews Neuroscience*, 11(2), 127–138. <https://doi.org/10.1038/nrn2787>
- Friston, K. (2018). Does predictive coding have a future? *Nature Neuroscience*, 21(8), 1019–1021. <https://doi.org/10.1038/s41593-018-0200-7>
- Fritz, J. B., Elhilali, M., David, S. V., & Shamma, S. A. (2007). Does attention play a role in dynamic receptive field adaptation to changing acoustic salience in A1? *Hearing Research*, 229(1-2), 186–203. <https://doi.org/10.1016/j.heares.2007.01.009>
- Frost, R. O., & Green, M. L. (1982). Velten mood induction procedure effects. *Personality and Social Psychology Bulletin*, 8(2), 341–347. <https://doi.org/10.1177/0146167282082024>
- Furnham, A., & Henderson, M. (1982). The good, the bad and the mad: Response bias in self-report measures. *Personality and Individual Differences*, 3(3), 311–320. [https://doi.org/10.1016/0191-8869\(82\)90051-4](https://doi.org/10.1016/0191-8869(82)90051-4)
- Galambos, R., & Davis, H. (1943). The response of single auditory-nerve fibers to acoustic stimulation. *Journal of Neurophysiology*, 6(1), 39–57. <https://doi.org/10.1152/jn.1943.6.1.39>
- Gamond, L., George, N., Lemaréchal, J.-D., Hugueville, L., Adam, C., & Tallon-Baudry, C. (2011). Early influence of prior experience on face perception. *NeuroImage*, 54(2), 1415–1426. <https://doi.org/10.1016/j.neuroimage.2010.08.081>

- García-Blanco, A. C., Perea, M., & Livianos, L. (2013). Mood-congruent bias and attention shifts in the different episodes of bipolar disorder. *Cognition and Emotion*, 27(6), 1114–1121. <https://doi.org/10.1080/02699931.2013.764281>
- García-Pérez, M. A. (1998). Forced-choice staircases with fixed step sizes: Asymptotic and small-sample properties. *Vision Research*, 38(12), 1861–1881. [https://doi.org/10.1016/S0042-6989\(97\)00340-4](https://doi.org/10.1016/S0042-6989(97)00340-4)
- García-Pérez, M. A., & Alcalá-Quintana, R. (2011). Interval bias in 2AFC detection tasks: Sorting out the artifacts. *Attention, Perception & Psychophysics*, 73(7), 2332–2352. <https://doi.org/10.3758/s13414-011-0167-x>
- Gardumi, A., Ivanov, D., Havlicek, M., Formisano, E., & Uludağ, K. (2017). Tonotopic maps in human auditory cortex using arterial spin labeling. *Human Brain Mapping*, 38(3), 1140–1154. <https://doi.org/10.1002/hbm.23444>
- Garrido, S. (2014). A systematic review of the studies measuring mood and emotion in response to music. *Psychomusicology: Music, Mind, and Brain*, 24(4), 316–327. <https://doi.org/10.1037/pmu0000072>
- Gasper, K. (2004). Do you see what I see? Affect and visual information processing. *Cognition & Emotion*, 18(3), 405–421. <https://doi.org/10.1080/02699930341000068>
- Gasper, K., & Clore, G. L. (2002). Attending to the big picture: Mood and global versus local processing of visual information. *Psychological Science*, 13(1), 34–40. <https://doi.org/10.1111/1467-9280.00406>
- Gawronski, B. (2009). Ten frequently asked questions about implicit measures and their frequently supposed, but not entirely correct answers. *Canadian Psychology/Psychologie Canadienne*, 50(3), 141–150. <https://doi.org/10.1037/a0013848>
- Gawronski, B., & Bodenhausen, G. V. (2011). The associative-propositional evaluation model: Theory, evidence, and open questions. *Advances in Experimental Social Psychology*, 44, 59–127. <https://doi.org/10.1016/B978-0-12-385522-0.00002-0>
- Gawronski, B., & De Houwer, J. (2014). Implicit measures in social and personality psychology. In *Handbook of research methods in social and personality psychology* (2nd ed., pp. 283–310). New York, NY: Cambridge University Press.
- Gawronski, B., & Hahn, A. (2019). Implicit measures: Procedures, use, and interpretation. In H. Blanton, J. M. LaCroix, & G. D. Webster (Eds.), (pp. 29–55). New York, NY: Taylor & Francis.
- Gerbino, W., & Fantoni, C. (2016). Action valence and affective perception. *Behavioral and Brain Sciences*, 39. <https://doi.org/10.1017/S0140525X15002605>
- Gescheider, G. A. (1985). *Psychophysics: Method, theory, and application* (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum.
- Gilbert, C. D., & Li, W. (2013). Top-down influences on visual processing. *Nature Reviews Neuroscience*, 14(5), 350–363. <https://doi.org/10.1038/nrn3476>
- Gillmeister, H., & Eimer, M. (2007). Tactile enhancement of auditory detection and perceived loudness. *Brain Research*, 1160, 58–68. <https://doi.org/10.1016/j.brainres.2007.03.041>
- Glisky, M. L., Tataryn, D. J., Tobias, B. A., Kihlstrom, J. F., & McConkey, K. M. (1991). Absorption, openness to experience, and hypnotizability. *Journal of Personality and Social Psychology*, 60(2), 263–272. <https://doi.org/10.1037/0022-3514.60.2.263>
- Gockel, H., Carlyon, R. P., & Plack, C. J. (2004). Across-frequency interference effects in fundamental frequency discrimination: Questioning evidence for two pitch mechanisms. *The Journal of the Acoustical Society of America*, 116(2), 1092–1104. <https://doi.org/10.1121/1.1766021>

## References

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- Goerlich, K. S., Witteman, J., Schiller, N. O., Van Heuven, V. J., Aleman, A., & Martens, S. (2012). The nature of affective priming in music and speech. *Journal of Cognitive Neuroscience*, 24(8), 1725–1741. [https://doi.org/10.1162/jocn\\_a\\_00213](https://doi.org/10.1162/jocn_a_00213)
- Gohm, C. L., & Clore, G. L. (2000). Individual differences in emotional experience: Mapping available scales to processes. *Personality and Social Psychology Bulletin*, 26(6), 679–697. <https://doi.org/10.1177/0146167200268004>
- Gold, J. I., & Shadlen, M. N. (2007). The neural basis of decision making. *Annual Review of Neuroscience*, 30(1), 535–574. <https://doi.org/10.1146/annurev.neuro.29.051605.113038>
- Goldstein, J. L. (1973). An optimum processor theory for the central formation of the pitch of complex tones. *The Journal of the Acoustical Society of America*, 54(6), 1496–1516. <https://doi.org/10.1121/1.1914448>
- Graveling, R. A., Pilkington, A., George, J. P., Butler, M. P., & Tannahill, S. N. (1999). A review of multiple chemical sensitivity. *Occupational and Environmental Medicine*, 56(2), 73–85. <https://doi.org/10.1136/oem.56.2.73>
- Gray, E., & Watson, D. (2007). Assessing positive and negative affect via self-report. In J. Coan & J. B. Allen (Eds.), *Handbook of emotion elicitation and assessment* (pp. 124–136). New York: Oxford University Press.
- Gray, J. A. (1970). The psychophysiological basis of introversion-extraversion. *Behaviour Research and Therapy*, 8(3), 249–266. [https://doi.org/10.1016/0005-7967\(70\)90069-0](https://doi.org/10.1016/0005-7967(70)90069-0)
- Gray, J. A. (1989). Fundamental systems of emotion in the mammalian brain. In D. Palermo (Ed.), *Coping with uncertainty: Behavioral and developmental perspectives* (pp. 173–195). Hillsdale, NJ: Lawrence Erlbaum.
- Gray, J. A., & MacNaughton, N. (2000). *The neuropsychology of anxiety: An enquiry into the functions of the septo-hippocampal system* (2nd ed.). Oxford, United Kingdom: Oxford University Press.
- Green, D., & Swets, J. A. (1966). *Signal detection theory and psychophysics*. New York, NY: Wiley.
- Greenwood, D. D. (1990). A cochlear frequency-position function for several species-29 years later. *The Journal of the Acoustical Society of America*, 87(6), 2592–2605. <https://doi.org/10.1121/1.399052>
- Gross, J. J., Sutton, S. K., & Ketelaar, T. (1998). Relations between affect and personality: Support for the affect-level and affective-reactivity views. *Personality and Social Psychology Bulletin*, 24(3), 279–288. <https://doi.org/10.1177/0146167298243005>
- Gross, S. (2017). Cognitive penetration and attention. *Frontiers in Psychology*, 8. <https://doi.org/10.3389/fpsyg.2017.00221>
- Guski, R. (1999). Personal and social variables as co-determinants of noise annoyance. *Noise and Health*, 1(3), 45–56. Retrieved from <http://www.noiseandhealth.org/article.asp?issn=1463-1741;year=1999;volume=1;issue=3;spage=45;epage=56;aulast=guski>
- Guski, R., Felscher-Suhr, U., & Schuemer, R. (1999). The concept of noise annoyance: How international experts see it. *Journal of Sound and Vibration*, 223(4), 513–527. <https://doi.org/10.1006/jsvi.1998.2173>
- Guyer, J. J., Fabrigar, L. R., & Vaughan-Johnston, T. I. (2019). Speech rate, intonation, and pitch: Investigating the bias and cue effects of vocal confidence on persuasion. *Personality and Social Psychology Bulletin*, 45(3), 389–405. <https://doi.org/10.1177/0146167218787805>
- Gygi, B., Kidd, G., & Watson, C. (2007). Similarity and categorization of environmental sounds. *Perception and Psychophysics*, 69(6), 839–855. <https://doi.org/10.3758/BF03193921>
- Hackel, L. M., Larson, G. M., Bowen, J. D., Ehrlich, G. A., Mann, T. C., Middlewood, B., ... Barrett, L. F. (2016). On the neural implausibility of the modular mind: Evidence for

- distributed construction dissolves boundaries between perception, cognition, and emotion. *Behavioral and Brain Sciences*, 39. <https://doi.org/10.1017/S0140525X15002770>
- Hairston, W. D., & Maldjian, J. A. (2009). An adaptive staircase procedure for the E-prime programming environment. *Computer Methods and Programs in Biomedicine*, 93(1), 104–108. <https://doi.org/10.1016/j.cmpb.2008.08.003>
- Halpern, D., Blake, R., & Hillenbrand, J. (1986). Psychoacoustics of a chilling sound. *Attention, Perception, & Psychophysics*, 39(2), 77–80. <https://doi.org/10.3758/bf03211488>
- Hansen, T., Olkkonen, M., Walter, S., & Gegenfurtner, K. R. (2006). Memory modulates color appearance. *Nature Neuroscience*, 9(11), 1367–1368. <https://doi.org/10.1038/nn1794>
- Harkness, D. L., & Keshava, A. (2017). Moving from the what to the how and where - Bayesian models and predictive processing. In T. K. Metzinger & W. Wiese (Eds.), *Philosophy and predictive processing* (chap. 16). Frankfurt am Main: MIND Group. <https://doi.org/10.15502/9783958573178>
- Hartman, C., & Majdandžić, M. (2001). *The Dutch translation of Adult Temperament Questionnaire, internal document in Dutch* [Unpublished Work]. Retrieved from <https://research.bowdoin.edu/rothbart-temperament-questionnaires/instrument-descriptions/the-adult-temperament-questionnaire/>
- Hayes, D. J., Duncan, N. W., Xu, J., & Northoff, G. (2014). A comparison of neural responses to appetitive and aversive stimuli in humans and other mammals. *Neuroscience & Biobehavioral Reviews*, 45, 350–368. <https://doi.org/10.1016/j.neubiorev.2014.06.018>
- Hayes, D. J., & Northoff, G. (2012). Common brain activations for painful and non-painful aversive stimuli. *BMC Neuroscience*, 13(1), 60–77. <https://doi.org/10.1186/1471-2202-13-60>
- Heekeren, H. R., Marrett, S., & Ungerleider, L. G. (2008). The neural systems that mediate human perceptual decision making. *Nature Reviews Neuroscience*, 9(6), 467–479. <https://doi.org/10.1038/nrn2374>
- Heil, P., & Peterson, A. J. (2015). Basic response properties of auditory nerve fibers: a review. *Cell and Tissue Research*, 361(1), 129–158. <https://doi.org/10.1007/s00441-015-2177-9>
- Heilbron, M., & Chait, M. (2018). Great expectations: Is there evidence for predictive coding in auditory cortex? *Neuroscience*, 389, 54–73. <https://doi.org/10.1016/j.neuroscience.2017.07.061>
- Helmholtz, H. L. F. (2009). *On the sensations of tone as a physiological basis for the theory of music* (A. J. Ellis, Trans.). Cambridge, UK: Cambridge University Press (original work (3rd ed) published in 1870). <https://doi.org/10.1017/CBO9780511701801>
- Hermans, D., Baeyens, F., & Eelen, P. (2003). On the acquisition and activation of evaluative information in memory: The study of evaluative learning and affective priming combined. In J. Musch & K. C. Klauer (Eds.), *The psychology of evaluation. affective processes in cognition and emotion* (pp. 139–168). Mahwah, New Jersey: Lawrence Erlbaum Associates.
- Hermans, D., & De Houwer, J. (1994). Affective and subjective familiarity ratings of 740 Dutch words. *Psychologica Belgica*, 34(2/3), 115–139.
- Hermans, D., De Houwer, J., & Eelen, P. (2001). A time course analysis of the affective priming effect. *Cognition & Emotion*, 15(2), 143–165. <https://doi.org/10.1080/02699930125768>
- Hermans, D., Spruyt, A., & Eelen, P. (2003). Automatic affective priming of recently acquired stimulus valence: Priming at SOA 300 but not at SOA 1000. *Cognition & Emotion*, 17(1), 83–99. <https://doi.org/10.1080/02699930302276>
- Hillert, L., Jovanovic, H., Åhs, F., & Savic, I. (2013). Women with multiple chemical sensitivity have increased harm avoidance and reduced 5-HT1A receptor binding potential in the

## References

---

- anterior cingulate and amygdala. *PLoS ONE*, 8(1), 1–10. <https://doi.org/10.1371/journal.pone.0054781>
- Hofmann, W., De Houwer, J., Perugini, M., Baeyens, F., & Crombez, G. (2010). Evaluative conditioning in humans: A meta-analysis. *Psychological Bulletin*, 136(3), 390–421. <https://doi.org/10.1037/a0018916>
- Hohwy, J. (2012). Attention and conscious perception in the hypothesis testing brain. *Frontiers in Psychology*, 3. <https://doi.org/10.3389/fpsyg.2012.00096>
- Hohwy, J. (2017). Priors in perception: Top-down modulation, Bayesian perceptual learning rate, and prediction error minimization. *Consciousness and Cognition*, 47, 75–85. <https://doi.org/10.1016/j.concog.2016.09.004>
- Horstmann, G. (2010). Tone-affect compatibility with affective stimuli and affective responses. *The Quarterly Journal of Experimental Psychology*, 63(11), 2239–2250. <https://doi.org/10.1080/17470211003687538>
- Houtsma, A. J. M., & Smurzynski, J. (1990). Pitch identification and discrimination for complex tones with many harmonics. *The Journal of the Acoustical Society of America*, 87(1), 304–310. <https://doi.org/10.1121/1.399297>
- Hsu, C.-T., Conrad, M., & Jacobs, A. M. (2014). Fiction feelings in Harry Potter: Haemodynamic response in the mid-cingulate cortex correlates with immersive reading experience. *NeuroReport*, 25(17), 1356–1361. <https://doi.org/10.1097/WNR.0000000000000272>
- Huang, C., Englitz, B., Shamma, S., & Rinzel, J. (2015). A neuronal network model for context-dependence of pitch change perception. *Frontiers in Computational Neuroscience*, 9. <https://doi.org/10.3389/fncom.2015.00101>
- Hunter, P., Schellenberg, E. G., & Schimmack, U. (2010). Feelings and perceptions of happiness and sadness induced by music: Similarities, differences, and mixed emotions. *Psychology of Aesthetics, Creativity, and the Arts*, 4(1), 47–56. <https://doi.org/10.1037/a0016873>
- Hunter, P. G., Schellenberg, E. G., & Griffith, A. T. (2011). Misery loves company: Mood-congruent emotional responding to music. *Emotion*, 11(5), 1068–1072. <https://doi.org/10.1037/a0023749>
- Hyman, L. M. (2001). Tone systems: Typology and description. In M. Haspelmath (Ed.), *Language typology and language universals: An international handbook* (Vol. 2, pp. 1367–1380.). Berlin, Germany: Walter de Gruyter.
- Isen, A. M., Clark, M., & Schwartz, M. F. (1976). Duration of the effect of good mood on helping: "Footprints on the sands of time.". *Journal of Personality and Social Psychology*, 34(3), 385–393. <https://doi.org/10.1037/0022-3514.34.3.385>
- Isen, A. M., & Gorgoglione, J. M. (1983). Some specific effects of four affect-induction procedures. *Personality and Social Psychology Bulletin*, 9(1), 136–143. <https://doi.org/10.1177/0146167283091019>
- Izard, C. E. (1977). *Human emotions*. New York: Springer.
- Izard, C. E. (2007). Basic emotions, natural kinds, emotion schemas, and a new paradigm. *Perspectives on Psychological Science*, 2(3), 260–280. <https://doi.org/10.1111/j.1745-6916.2007.00044.x>
- Izard, C. E. (2011). Forms and functions of emotions: Matters of emotion-cognition interactions. *Emotion Review*, 3(4), 371–378. <https://doi.org/10.1177/1754073911410737>
- Jagiellowicz, J., Xu, X., Aron, A., Aron, E., Cao, G., Feng, T., & Weng, X. (2011). The trait of sensory processing sensitivity and neural responses to changes in visual scenes. *Social Cognitive and Affective Neuroscience*, 6(1), 38–47. <https://doi.org/10.1093/scan/nsq001>
- Jefferies, L. N., Smilek, D., Eich, E., & Enns, J. T. (2008). Emotional valence and arousal interact in attentional control. *Psychological Science*, 19(3), 290–295. <https://doi.org/10.1111/j.1467-9280.2008.02181.x>

- 10.1111/j.1467-9280.2008.02082.x
- Jepma, M., & Nieuwenhuis, S. (2011). Pupil diameter predicts changes in the exploration-exploitation trade-off: Evidence for the adaptive gain theory. *Journal of Cognitive Neuroscience*, 23(7), 1587–1596. <https://doi.org/10.1162/jocn.2010.21548> M20666595
- Job, R. F. S. (1988). Community response to noise: A review of factors influencing the relationship between noise exposure and reaction. *The Journal of the Acoustical Society of America*, 83(3), 991–1001. <https://doi.org/10.1121/1.396524>
- Johnson, D. H. (1980). The relationship between spike rate and synchrony in responses of auditory-nerve fibers to single tones. *The Journal of the Acoustical Society of America*, 68(4), 1115–1122. <https://doi.org/10.1121/1.384982>
- Jones, P. R., Moore, D. R., Shub, D. E., & Amitay, S. (2015). The role of response bias in perceptual learning. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 41(5), 1456–1470. <https://doi.org/10.1037/xlm0000111>
- Joseph, D. L., Chan, M. Y., Heintzelman, S. J., Tay, L., Diener, E., & Scotney, V. S. (2020). The manipulation of affect: A meta-analysis of affect induction procedures. *Psychological Bulletin*, 146(4), 355–375. <https://doi.org/10.1037/bul0000224>
- Juslin, P. N., & Västfjäll, D. (2008). Emotional responses to music: The need to consider underlying mechanisms. *Behavioral and Brain Sciences*, 31(05), 559–575. <https://doi.org/10.1017/S0140525X08005293>
- Kaernbach, C., & Bering, C. (2001). Exploring the temporal mechanism involved in the pitch of unresolved harmonics. *The Journal of the Acoustical Society of America*, 110(2), 1039–1048. <https://doi.org/10.1121/1.1381535>
- Kahneman, D. (1973). *Attention and effort*. Englewood Cliffs, N. J.: Prentice-Hall.
- Kanouse, D. E., & Hanson, L. (1972). Negativity in evaluations. In E. E. Jones, D. E. Kanouse, S. Valins, H. H. Kelley, R. E. Nisbett, & B. Weiner (Eds.), *Attribution: Perceiving the causes of behavior* (pp. 47–62). Morris- town, NJ: General Learning Press.
- Kawase, T., Delgutte, B., & Liberman, M. C. (1993). Antimasking effects of the olivocochlear reflex II. enhancement of auditory-nerve response to masked tones. *Journal of Neurophysiology*, 70(6), 2533–2549. <https://doi.org/10.1152/jn.1993.70.6.2533>
- Keil, A., & Freund, A. M. (2009). Changes in the sensitivity to appetitive and aversive arousal across adulthood. *Psychology and Aging*, 24(3), 668–680. <https://doi.org/10.1037/a0016969>
- Keil, A., Stolarova, M., Moratti, S., & Ray, W. J. (2007). Adaptation in human visual cortex as a mechanism for rapid discrimination of aversive stimuli. *NeuroImage*, 36(2), 472–479. <https://doi.org/10.1016/j.neuroimage.2007.02.048>
- Kelly, S. P., & O'Connell, R. G. (2015). The neural processes underlying perceptual decision making in humans: Recent progress and future directions. *Journal of Physiology-Paris*, 109(1), 27–37. <https://doi.org/10.1016/j.jphapsparis.2014.08.003>
- Keltner, D., Tracy, J. L., Sauter, D., & Cowen, A. (2019). What basic emotion theory really says for the twenty-first century study of emotion. *Journal of Nonverbal Behavior*, 43(2), 195–201. <https://doi.org/10.1007/s10919-019-00298-y>
- Kersten, D., & Yuille, A. (2003). Bayesian models of object perception. *Current Opinion in Neurobiology*, 13(2), 150–158. [https://doi.org/10.1016/S0959-4388\(03\)00042-4](https://doi.org/10.1016/S0959-4388(03)00042-4)
- Kiang, N., Watanabe, T., Thomas, E. C., & Clark, L. F. (1965). *Discharge patterns of single fibers in the cat's auditory nerve*. Cambridge, MA: Massachusetts Institute of Technology Press. Retrieved from <https://ntrs.nasa.gov/archive/nasa/casi.ntrs.nasa.gov/19660030628.pdf>
- King, A. J., Teki, S., & Willmore, B. D. B. (2018). Recent advances in understanding the auditory cortex. *F1000Research*, 7, F1000 Faculty Rev-1555. <https://doi.org/10.12688/f1000research.11555>

## References

---

- f1000research.15580.1
- Kingdom, F. A., & Prins, N. (2010). *Psychophysics: A practical introduction* (1st ed.). London, UK: Academic Press.
- Klein, S. A. (2001). Measuring, estimating, and understanding the psychometric function: A commentary. *Perception & Psychophysics*, 63(8), 1421–1455. <https://doi.org/10.3758/BF03194552>
- Klemfuss, N., Prinzmetal, B., & Ivry, R. (2012). How does language change perception: A cautionary note. *Frontiers in Psychology*, 3. <https://doi.org/10.3389/fpsyg.2012.00078>
- Klink, P. C., van Wezel, R. J. A., & van Ee, R. (2012). United we sense, divided we fail: context-driven perception of ambiguous visual stimuli. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 367(1591), 932–941. <https://doi.org/10.1098/rstb.2011.0358>
- Koster, E. H. W., De Raedt, R., Goeleven, E., Franck, E., & Crombez, G. (2005). Mood-congruent attentional bias in dysphoria: Maintained attention to and impaired disengagement from negative information. *Emotion*, 5(4), 446–455. <https://doi.org/10.1037/1528-3542.5.4.446>
- Krantz, D. H. (1969). Threshold theories of signal detection. *Psychological Review*, 76(3), 308–324. <https://doi.org/10.1037/h0027238>
- Kuchibhotla, K., & Bathellier, B. (2018). Neural encoding of sensory and behavioral complexity in the auditory cortex. *Current Opinion in Neurobiology*, 52, 65–71. <https://doi.org/10.1016/j.conb.2018.04.002>
- Kuhbandner, C., Hanslmayr, S., Maier, M. A., Pekrun, R., Spitzer, B., Pastötter, B., & Bäuml, K.-H. (2009). Effects of mood on the speed of conscious perception: behavioural and electrophysiological evidence. *Social Cognitive and Affective Neuroscience*, 4(3), 286–293. <https://doi.org/10.1093/scan/nsp010>
- Kuhbandner, C., & Zehetleitner, M. (2011). Dissociable effects of valence and arousal in adaptive executive control. *PLoS ONE*, 6(12), e29287. <https://doi.org/10.1371/journal.pone.0029287>
- Kuhn, T. S. (1962). *The structure of scientific revolutions*. Chicago, IL: University of Chicago Press.
- Ladd, D. R. (2008). *Intonational phonology* (2nd ed.). Cambridge, UK: Cambridge University Press. <https://doi.org/10.1017/CBO9780511808814>
- Ladd, D. R., Turnbull, R., Browne, C., Caldwell-Harris, C., Ganushchak, L., Swoboda, K., ... Dediu, D. (2013). Patterns of individual differences in the perception of missing-fundamental tones. *Journal of Experimental Psychology: Human Perception and Performance*. <https://doi.org/10.1037/a0031261>
- Laguitton, V., Demany, L., Semal, C., & Liégeois-Chauvel, C. (1998). Pitch perception: a difference between right- and left-handed listeners. *Neuropsychologia*, 36(3), 201–207. [https://doi.org/10.1016/s0028-3932\(97\)00122-x](https://doi.org/10.1016/s0028-3932(97)00122-x)
- Lakoff, G., & Johnson, M. (1980). *Metaphors we live by*. Chicago, IL: University of Chicago Press.
- Lamichhane, B., & Dhamala, M. (2015). The salience network and its functional architecture in a perceptual decision: An effective connectivity study. *Brain Connectivity*, 5(6), 362–370. <https://doi.org/10.1089/brain.2014.0282>
- Lamme, V. A. F. (2003). Why visual attention and awareness are different. *Trends in Cognitive Sciences*, 7(1), 12–18. [https://doi.org/10.1016/S1364-6613\(02\)00013-X](https://doi.org/10.1016/S1364-6613(02)00013-X)
- Lang, P., Bradley, M. M., & Cuthbert, B. (2005). *International Affective Picture System (IAPS): Affective ratings of pictures and instruction manual* (Technical Report No. A-6).

- Gainesville, FL: University of Florida.
- Langers, D. R., & van Dijk, P. (2012). Mapping the tonotopic organization in human auditory cortex with minimally salient acoustic stimulation. *Cerebral Cortex*, 22(9), 2024–2038. <https://doi.org/10.1093/cercor/bhr282>
- Larsen, R. J., & Diener, E. (1992). Promises and problems with the circumplex model of emotion. In *Emotion*. (pp. 25–59). Thousand Oaks, CA: Sage Publications, Inc.
- Lavender, T., & Hommel, B. (2007). Affect and action: Towards an event-coding account. *Cognition and Emotion*, 21(6), 1270–1296. <https://doi.org/10.1080/02699930701438152>
- Lee, J., & Maunsell, J. H. R. (2009). A normalization model of attentional modulation of single unit responses. *PLoS ONE*, 4(2), 1–13. <https://doi.org/10.1371/journal.pone.0004651>
- Lee, S. W. S., & Schwarz, N. (2012). Bidirectionality, mediation, and moderation of metaphorical effects: The embodiment of social suspicion and fishy smells. *Journal of Personality and Social Psychology*, 103(5), 737–749. <https://doi.org/10.1037/a0029708>
- Lee, T.-H., Baek, J., Lu, Z.-L., & Mather, M. (2014). How arousal modulates the visual contrast sensitivity function. *Emotion*, 14(5), 978–984. <https://doi.org/10.1037/a0037047>
- Lee, T.-H., Itti, L., & Mather, M. (2012). Evidence for arousal-biased competition in perceptual learning. *Frontiers in Psychology*, 3. <https://doi.org/10.3389/fpsyg.2012.00241>
- Lee, T.-H., Sakaki, M., Cheng, R., Velasco, R., & Mather, M. (2014). Emotional arousal amplifies the effects of biased competition in the brain. *Social Cognitive and Affective Neuroscience*, 9(12), 2067–2077. <https://doi.org/10.1093/scan/nsu015>
- Leek, M. R. (2001). Adaptive procedures in psychophysical research. *Perception & Psychophysics*, 63(8), 1279–1292. <https://doi.org/10.3758/BF03194543>
- Leek, M. R., Brown, M. E., & Dorman, M. F. (1991). Informational masking and auditory attention. *Perception & Psychophysics*, 50(3), 205–214. <https://doi.org/10.3758/bf03206743>
- Lemus, L., Hernández, A., & Romo, R. (2009). Neural codes for perceptual discrimination of acoustic flutter in the primate auditory cortex. *Proceedings of the National Academy of Sciences*, 106(23), 9471–9476. <https://doi.org/10.1073/pnas.0904066106>
- Lesmes, L., Lu, Z.-L., Baek, J., Tran, N., Dosher, B., & Albright, T. (2015). Developing Bayesian adaptive methods for estimating sensitivity thresholds ( $d'$ ) in yes-no and forced-choice tasks. *Frontiers in Psychology*, 6. <https://doi.org/10.3389/fpsyg.2015.01070>
- Levey, A. B., & Martin, I. (1975). Classical conditioning of human 'evaluative' responses. *Behaviour Research and Therapy*, 13(4), 221–226. [https://doi.org/10.1016/0005-7967\(75\)90026-1](https://doi.org/10.1016/0005-7967(75)90026-1)
- Levitt, H. (1971). Transformed up-down methods in psychoacoustics. *The Journal of the Acoustical Society of America*, 49(2B), 467–477. <https://doi.org/10.1121/1.1912375>
- Licklider, J. C. R. (1951). A duplex theory of pitch perception. *The Journal of the Acoustical Society of America*, 23(1), 147–147. <https://doi.org/10.1121/1.1917296>
- Licklider, J. C. R. (1954). "Periodicity" pitch and "place" pitch. *The Journal of the Acoustical Society of America*, 26(5), 945–945. <https://doi.org/10.1121/1.1928005>
- Lin, J.-F. L., Imada, T., Kuhl, P. K., & Lin, F.-H. (2018). Incongruent pitch cues are associated with increased activation and functional connectivity in the frontal areas. *Scientific Reports*, 8(1), 5206. <https://doi.org/10.1038/s41598-018-23287-5>
- Lindquist, K. A., Wager, T. D., Kober, H., Bliss-Moreau, E., & Barrett, L. F. (2012). The brain basis of emotion: A meta-analytic review. *Behavioral and Brain Sciences*, 35(3), 121–143. <https://doi.org/10.1017/S0140525X11000446>
- Lipp, O. V., Oughton, N., & LeLievre, J. (2003). Evaluative learning in human Pavlovian conditioning: Extinct, but still there? *Learning and Motivation*, 34(3), 219–239. <https://doi.org/10.1016/j.lmot.2003.07.001>

## References

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- doi.org/10.1016/S0023-9690(03)00011-0
- Lipp, O. V., & Purkis, H. M. (2005). No support for dual process accounts of human affective learning in simple Pavlovian conditioning. *Cognition & Emotion*, 19(2), 269–282. <https://doi.org/10.1080/02699930441000319>
- Lipp, O. V., & Purkis, H. M. (2006). The effects of assessment type on verbal ratings of conditional stimulus valence and contingency judgments: Implications for the extinction of evaluative learning. *Journal of Experimental Psychology: Animal Behavior Processes*, 32(4), 431–440. <https://doi.org/10.1037/0097-7403.32.4.431>
- Lu, T., Liang, L., & Wang, X. (2001). Temporal and rate representations of time-varying signals in the auditory cortex of awake primates. *Nature Neuroscience*, 4(11), 1131–1138. <https://doi.org/10.1038/nn737>
- Lupyan, G. (2015a). Cognitive penetrability of perception in the age of prediction: Predictive systems are penetrable systems. *Review of Philosophy and Psychology*, 6(4), 547–569. <https://doi.org/10.1007/s13164-015-0253-4>
- Lupyan, G. (2015b). Reply to Macpherson: Further illustrations of the cognitive penetrability of perception. *Review of Philosophy and Psychology*, 6(4), 585–589. <https://doi.org/10.1007/s13164-015-0253-4>
- Lupyan, G. (2016). Not even wrong: The “it’s just X” fallacy. *Behavioral and Brain Sciences*, 39. <https://doi.org/10.1017/S0140525X15002721>
- Lupyan, G., & Spivey, M. J. (2008). Perceptual processing is facilitated by ascribing meaning to novel stimuli. *Current Biology*, 18(10), R410–R412. <https://doi.org/10.1016/j.cub.2008.02.073>
- Machery, E. (2015). Cognitive penetrability: A no-progress report. In J. Zeimbekis & A. Raftopoulos (Eds.), *The cognitive penetrability of perception: New philosophical perspectives* (pp. 59–74). New York, NY: Oxford University Press.
- MacKinnon, D. P., Krull, J. L., & Lockwood, C. M. (2000). Equivalence of the mediation, confounding and suppression effect. *Prevention Science*, 1(4), 173–181. <https://doi.org/10.1023/A:1026595011371>
- Macmillan, N. A., & Creelman, C. D. (2005). *Detection theory: A user's guide* (2nd ed.). Mahwah, NJ: Lawrence Erlbaum.
- Macpherson, F. (2012). Cognitive penetration of colour experience: Rethinking the issue in light of an indirect mechanism. *Philosophy and Phenomenological Research*, 84(1), 24–62. <https://doi.org/10.1111/j.1933-1592.2010.00481.x>
- Macpherson, F. (2017). The relationship between cognitive penetration and predictive coding. *Consciousness and Cognition*, 47, 6–16. <https://doi.org/10.1016/j.concog.2016.04.001>
- Maddox, W. T., & Bohil, C. J. (1998). Base-rate and payoff effects in multidimensional perceptual categorization. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 24(6), 1459–1482. <https://doi.org/10.1037/0278-7393.24.6.1459>
- Malmierca, M. S., Anderson, L. A., & Antunes, F. M. (2015). The cortical modulation of stimulus-specific adaptation in the auditory midbrain and thalamus: a potential neuronal correlate for predictive coding. *Frontiers in Systems Neuroscience*, 9. <https://doi.org/10.3389/fnsys.2015.00019>
- Marchi, F. (2017). Attention and cognitive penetrability: The epistemic consequences of attention as a form of metacognitive regulation. *Consciousness and Cognition*, 47, 48–62. <https://doi.org/10.1016/j.concog.2016.06.014>
- Maris, E., Stallen, P. J. M., Vermunt, R., & Steensma, H. (2007a). Evaluating noise in social context: the effect of procedural unfairness on noise annoyance judgments. *The*

- Journal of the Acoustical Society of America*, 122(6), 3483–3494. <https://doi.org/10.1121/1.2799901>
- Maris, E., Stallen, P. J. M., Vermunt, R., & Steensma, H. (2007b). Noise within the social context: Annoyance reduction through fair procedures. *The Journal of the Acoustical Society of America*, 121(4), 2000–2010. <https://doi.org/10.1121/1.2535507>
- Markett, S., Weber, B., Voigt, G., Montag, C., Felten, A., Elger, C., & Reuter, M. (2013). Intrinsic connectivity networks and personality: The temperament dimension harm avoidance moderates functional connectivity in the resting brain. *Neuroscience*, 240, 98–105. <https://doi.org/10.1016/j.neuroscience.2013.02.056>
- Markov, N. T., & Kennedy, H. (2013). The importance of being hierarchical. *Current Opinion in Neurobiology*, 23(2), 187–194. <https://doi.org/10.1016/j.conb.2012.12.008>
- Markov, N. T., Vezoli, J., Chameau, P., Falchier, A., Quilodran, R., Huissoud, C., ... Kennedy, H. (2014). Anatomy of hierarchy: Feedforward and feedback pathways in macaque visual cortex. *Journal of Comparative Neurology*, 522(1), 225–259. <https://doi.org/10.1002/cne.23458>
- Marks, L. E., & Florentine, M. (2011). Measurement of loudness, part I: Methods, problems, and pitfalls. In M. Florentine, A. N. Popper, & R. R. Fay (Eds.), *Loudness* (pp. 17–56). New York: Springer. [https://doi.org/10.1007/978-1-4419-6712-1\\_2](https://doi.org/10.1007/978-1-4419-6712-1_2)
- Marks, L. E., & Gescheider, G. A. (2002). Psychophysical scaling. In *Stevens' handbook of experimental psychology: Methodology in experimental psychology* (3rd ed., Vol. 4, pp. 91–138). Hoboken, NJ: John Wiley & Sons Inc. <https://doi.org/10.1002/0471214426.pas0403>
- Marr, D. (1982). *Vision: A computational investigation into the human representation and processing of visual information*. San Francisco, CA: W.H. Freeman.
- Marshall, L., Hanna, T. E., & Wilson, R. H. (1996). Effect of step size on clinical and adaptive 2IFC procedures in quiet and in a noise background. *Journal of Speech, Language, and Hearing Research*, 39(4), 687–696. <https://doi.org/10.1044/jshr.3904.687>
- Marshall, L., & Jesteadt, W. (1986). Comparison of pure-tone audibility thresholds obtained with audiological and two-interval forced-choice procedures. *Journal of Speech, Language, and Hearing Research*, 29(1), 82–91. <https://doi.org/10.1044/jshr.2901.82>
- Mather, M., & Sutherland, M. R. (2011). Arousal-biased competition in perception and memory. *Perspectives on Psychological Science*, 6(2), 114–133. <https://doi.org/10.1177/1745691611400234>
- Mayer, J. D., Gaschke, Y. N., Braverman, D. L., & Evans, T. W. (1992). Mood-congruent judgment is a general effect. *Journal of Personality and Social Psychology*, 63(1), 119–132. <https://doi.org/10.1037/0022-3514.63.1.119>
- McClelland, J. L., Mirman, D., Bolger, D. J., & Khaitan, P. (2014). Interactive activation and mutual constraint satisfaction in perception and cognition. *Cognitive Science*, 38(6), 1139–1189. <https://doi.org/10.1111/cogs.12146>
- McCrae, R. R. (1993). Openness to experience as a basic dimension of personality. *Imagination, Cognition and Personality*, 13(1), 39–55. <https://doi.org/10.2190/H8H6-QYKR-KEU8-GAQ0>
- McCrae, R. R., & Costa, P. T. (1987). Validation of the five-factor model of personality across instruments and observers. *Journal of Personality and Social Psychology*, 52(1), 81–90. <https://doi.org/10.1037/0022-3514.52.1.81>
- McCrae, R. R., & Costa, P. T. (1997). Conceptions and correlates of openness to experience. In R. Hogan, J. A. Johnson, & S. R. Briggs (Eds.), *Handbook of personality psychology* (pp.

## References

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- 825–847). San Diego, CA: Academic Press. <https://doi.org/10.1016/B978-012134645-4/50032-9>
- McCrae, R. R., & Costa, P. T., Jr. (1991). Adding liebe und arbeit: The full five-factor model and well-being. *Personality and Social Psychology Bulletin, 17*(2), 227–232. <https://doi.org/10.1177/014616729101700217>
- McCurdy, H. G. (1956). Coin perception studies and the concept of schemata. *Psychological Review, 63*(3), 160–168. <https://doi.org/10.1037/h0046614>
- McDermott, J. (2018). Audition. In J. T. Wixted & J. Serences (Eds.), *Stevens' handbook of experimental psychology and cognitive neuroscience: Sensation, perception, and attention* (4th ed., Vol. 2, pp. 63–120). New York, NY: Wiley. <https://doi.org/10.1002/9781119170174.epcn202>
- McGinley, M., David, S., & McCormick, D. (2015). Cortical membrane potential signature of optimal states for sensory signal detection. *Neuron, 87*(1), 179–192. <https://doi.org/10.1016/j.neuron.2015.05.038>
- McNicol, D. (2005). *A primer of signal detection theory*. Mahwah, N.J.: Psychology Press.
- McPherson, M. J., & McDermott, J. H. (2018). Diversity in pitch perception revealed by task dependence. *Nature Human Behaviour, 2*(1), 52–66. <https://doi.org/10.1038/s41562-017-0261-8>
- Meddis, R., & Hewitt, M. J. (1991). Virtual pitch and phase sensitivity of a computer model of the auditory periphery. I: Pitch identification. *The Journal of the Acoustical Society of America, 89*(6), 2866–2882. <https://doi.org/10.1121/1.400725>
- Meddis, R., & O'Mard, L. (1997). A unitary model of pitch perception. *The Journal of the Acoustical Society of America, 102*(3), 1811–1820. <https://doi.org/10.1121/1.420088>
- Meier, B. P., & Robinson, M. D. (2004). Why the sunny side is up: Associations between affect and vertical position. *Psychological Science, 15*(4), 243–247. <https://doi.org/10.1111/j.0956-7976.2004.00659.x>
- Meier, B. P., & Robinson, M. D. (2006). Does “feeling down” mean seeing down? Depressive symptoms and vertical selective attention. *Journal of Research in Personality, 40*(4), 451–461. <https://doi.org/10.1016/j.jrp.2005.03.001>
- Meier, B. P., Robinson, M. D., Crawford, L. E., & Ahlvers, W. J. (2007). When ‘light’ and ‘dark’ thoughts become light and dark responses: Affect biases brightness judgments. *Emotion, 7*(2), 366–376. <https://doi.org/10.1037/1528-3542.7.2.366>
- Meyer, A. C., & Moser, T. (2010). Structure and function of cochlear afferent innervation. *Current Opinion in Otolaryngology & Head and Neck Surgery, 18*(5), 441–446. <https://doi.org/10.1097/MOO.0b013e32833e0586>
- Miedema, H. M. E., & Vos, H. (1999). Demographic and attitudinal factors that modify annoyance from transportation noise. *The Journal of the Acoustical Society of America, 105*(6), 3336–3344. <https://doi.org/10.1121/1.424662>
- Miedema, H. M. E., & Vos, H. (2003). Noise sensitivity and reactions to noise and other environmental conditions. *The Journal of the Acoustical Society of America, 113*(3), 1492–1504. <https://doi.org/10.1121/1.1547437>
- Mitchell, C. J., Anderson, N. E., & Lovibond, P. F. (2003). Measuring evaluative conditioning using the implicit association test. *Learning and Motivation, 34*(2), 203–217. [https://doi.org/10.1016/S0023-9690\(03\)00003-1](https://doi.org/10.1016/S0023-9690(03)00003-1)
- Mitchell, R. L. C., & Phillips, L. H. (2007). The psychological, neurochemical and functional neuroanatomical mediators of the effects of positive and negative mood on executive functions. *Neuropsychologia, 45*(4), 617–629. <https://doi.org/10.1016/j.neuropsychologia.2006.06.030>

- Mitchell, R. L. C., & Ross, E. D. (2013). Attitudinal prosody: What we know and directions for future study. *Neuroscience & Biobehavioral Reviews*, 37(3), 471–479. <https://doi.org/10.1016/j.neubiorev.2013.01.027>
- Miyakita, T., Hellström, P.-A., Frimanson, E., & Axelsson, A. (1992). Effect of low level acoustic stimulation on temporary threshold shift in young humans. *Hearing Research*, 60(2), 149–155. [https://doi.org/10.1016/0378-5955\(92\)90017-h](https://doi.org/10.1016/0378-5955(92)90017-h)
- Moore, B. C. J. (2003). *An introduction to the psychology of hearing* (5th ed.). London, UK: Elsevier Academic Press.
- Moore, B. C. J. (2012). *An introduction to the psychology of hearing* (6th ed.). Bingley, UK: Emerald Group Publishing Limited.
- Moors, A., Ellsworth, P. C., Scherer, K. R., & Frijda, N. H. (2013). Appraisal theories of emotion: State of the art and future development. *Emotion Review*, 5(2), 119–124. <https://doi.org/10.1177/1754073912468165>
- Morgan, M. J., Dillenburger, B., Raphael, S., & Solomon, J. A. (2012). Observers can voluntarily shift their psychometric functions without losing sensitivity. *Attention, Perception, & Psychophysics*, 74(1), 185–193. <https://doi.org/10.3758/s13414-011-0222-7>
- Morgan, M. J., Melmoth, D., & Solomon, J. A. (2013). Linking hypotheses underlying class A and class B methods. *Visual Neuroscience*, 30(5-6), 197–206. <https://doi.org/10.1017/S095252381300045X>
- Möttus, R., Allik, J., Realo, A., Rossier, J., Zecca, G., Ah-Kion, J., ... Johnson, W. (2012). The effect of response style on self-reported conscientiousness across 20 countries. *Personality and Social Psychology Bulletin*, 38(11), 1423–1436. <https://doi.org/10.1177/0146167212451275>
- Mulders, W. H. A. M., Seluakumaran, K., & Robertson, D. (2008). Effects of centrifugal pathways on responses of cochlear nucleus neurons to signals in noise. *European Journal of Neuroscience*, 27(3), 702–714. <https://doi.org/10.1111/j.1460-9568.2008.06046.x>
- Murphy, F. C., Sahakian, B. J., Rubinsztein, J. S., Michael, A., Rogers, R. D., Robbins, T. W., & Paykel, E. S. (1999). Emotional bias and inhibitory control processes in mania and depression. *Psychological Medicine*, 29(6), 1307–1321. <https://doi.org/10.1017/S0033291799001233>
- Murphy, P. R., Robertson, I. H., Balsters, J. H., & O'Connell, R. G. (2011). Pupilometry and P3 index the locus coeruleus-noradrenergic arousal function in humans. *Psychophysiology*, 48(11), 1532–1543. <https://doi.org/10.1111/j.1469-8986.2011.01226.x>
- Musiek, F. E., & Baran, J. A. (2020). *The auditory system: Anatomy, physiology, and clinical correlates*. San Diego, CA: Plural Publishing.
- Narayan, S. S., Temchin, A. N., Recio, A., & Ruggero, M. A. (1998). Frequency tuning of basilar membrane and auditory nerve fibers in the same cochleae. *Science*, 282(5395), 1882–1884. <https://doi.org/10.1126/science.282.5395.1882>
- Nebylitsyn, V. D., Rozhdestvenskaya, V. I., & Teplov, B. M. (1960). Concerning the interrelation between absolute sensitivity and strength of the nervous system. *Quarterly Journal of Experimental Psychology*, 12(1), 17–25. <https://doi.org/10.1080/17470216008416695>
- Neuhoff, J. G. (2004). *Ecological psychoacoustics*. Amsterdam: Elsevier Academic Press.
- Newen, A., Marchi, F., & Brössel, P. (Eds.). (2017). Cognitive penetration and predictive coding [Special issue]. *Consciousness and Cognition*, 47, 1–112.
- Nieuwenhuis, S., De Geus, E. J., & Aston-Jones, G. (2011). The anatomical and functional relationship between the P3 and autonomic components of the orienting response. *Psychophysiology*, 48(2), 162–175. <https://doi.org/10.1111/j.1469-8986.2010.01057.x>

## References

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- Ninomiya, T., Sawamura, H., Inoue, K.-i., & Takada, M. (2012). Segregated pathways carrying frontally derived top-down signals to visual areas MT and V4 in macaques. *The Journal of Neuroscience*, 32(20), 6851–6858. <https://doi.org/10.1523/jneurosci.6295-11.2012>
- O'Callaghan, C., Kveraga, K., Shine, J. M., Adams, R. B., Jr., & Bar, M. (2017). Predictions penetrate perception: Converging insights from brain, behaviour and disorder. *Consciousness and Cognition*, 47, 63–74. <https://doi.org/10.1016/j.concog.2016.05.003>
- Ochsner, K. N., & Gross, J. J. (2008). Cognitive emotion regulation: Insights from social cognitive and affective neuroscience. *Current Directions in Psychological Science*, 17(2), 153–158. <https://doi.org/10.1111/j.1467-8721.2008.00566.x>
- Odgaard, E. C., Arieh, Y., & Marks, L. E. (2003). Cross-modal enhancement of perceived brightness: Sensory interaction versus response bias. *Perception & psychophysics*, 65(1), 123–132. <https://doi.org/10.3758/BF03194789>
- Öhman, A., & Mineka, S. (2001). Fears, phobias, and preparedness: Toward an evolved module of fear and fear learning. *Psychological Review*, 108(3), 483–522. <https://doi.org/10.1037/0033-295X.108.3.483>
- Olson, E. S., Duifhuis, H., & Steele, C. R. (2012). Von Békésy and cochlear mechanics. *Hearing Research*, 293(1), 31–43. <https://doi.org/10.1016/j.heares.2012.04.017>
- Ormel, J., Oldehinkel, A., Ferdinand, R., Hartman, C., De Winter, A., Veenstra, R., ... Verhulst, F. (2005). Internalizing and externalizing problems in adolescence: General and dimension-specific effects of familial loadings and preadolescent temperament traits. *Psychological Medicine*, 35(12), 1825–1835. <https://doi.org/10.1017/S0033291705005829>
- Orne, M. T. (1962). On the social psychology of the psychological experiment: With particular reference to demand characteristics and their implications. *American Psychologist*, 17(11), 776–783. <https://doi.org/10.1037/h0043424>
- Osgood, C. E., May, W. H., & Miron, M. S. (1975). *Cross-cultural universals of affective meaning*. Urbana, IL: University of Illinois Press.
- Owren, M. J., & Bachorowski, J. (2007). Measuring emotion-related vocal acoustics. In J. Coan & J. B. Allen (Eds.), *Handbook of emotion elicitation and assessment* (pp. 239–266). New York: Oxford University Press.
- Oxenham, A. J. (2013a). Mechanisms and mechanics of auditory masking. *The Journal of Physiology*, 591(10), 2375–2375. <https://doi.org/10.1111/jphysiol.2013.254490>
- Oxenham, A. J. (2013b). Revisiting place and temporal theories of pitch. *Acoustical Science and Technology*, 34(6), 388–396. <https://doi.org/10.1250/ast.34.388>
- Oxenham, A. J., Fligor, B. J., Mason, C. R., & Kidd, G., Jr. (2003). Informational masking and musical training. *The Journal of the Acoustical Society of America*, 114(3), 1543–1549. <https://doi.org/10.1121/1.1598197>
- Panksepp, J. (1998). *Affective neuroscience: The foundations of human and animal emotions*. New York, NY: Oxford University Press.
- Panksepp, J., & Watt, D. (2011). What is basic about basic emotions? Lasting lessons from affective neuroscience. *Emotion Review*, 3(4), 387–396. <https://doi.org/10.1177/1754073911410741>
- Passchier-Vermeeren, W., & Passchier, W. F. (2000). Noise exposure and public health. *Environmental Health Perspectives*, 108(Suppl. 1), 123–131. <https://doi.org/10.1289/ehp.00108s1123>
- Paulhus, D. L. (1991). Measurement and control of response bias. In J. Robinson, P. Shaver, & L. Wrightsman (Eds.), *Measures of personality and social psychological attitudes* (pp. 17–59). San Diego, CA: Academic Press.

- Paulhus, D. L., & Levitt, K. (1987). Desirable responding triggered by affect: Automatic egotism? *Journal of Personality and Social Psychology*, 52(2), 245–259. <https://doi.org/10.1037/0022-3514.52.2.245>
- Paulhus, D. L., & Lim, D. T. K. (1994). Arousal and evaluative extremity in social judgments: A dynamic complexity model. *European Journal of Social Psychology*, 24(1), 89–99. <https://doi.org/10.1002/ejsp.2420240107>
- Pessoa, L. (2008). On the relationship between emotion and cognition. *Nature Reviews Neuroscience*, 9(2), 148–158. <https://doi.org/10.1038/nrn2317>
- Pessoa, L. (2014). Understanding brain networks and brain organization. *Physics of Life Reviews*, 11(3), 400–435. <https://doi.org/10.1016/j.plrev.2014.03.005>
- Phelps, E. A., Ling, S., & Carrasco, M. (2006). Emotion facilitates perception and potentiates the perceptual benefits of attention. *Psychological Science*, 17(4), 292–299. <https://doi.org/10.1111/j.1467-9280.2006.01701.x>
- Philbeck, J. W., & Witt, J. K. (2015). Action-specific influences on perception and postperceptual processes: Present controversies and future directions. *Psychological Bulletin*, 141(6), 1120–1144. <https://doi.org/10.1037/a0039738>
- Pickering, A. D., & Gray, J. A. (1999). The neuroscience of personality. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research* (Vol. 2, pp. 277–299). New York, NY: The Guilford Press.
- Plack, C., & Oxenham, A. (2005a). Overview: The present and future of pitch. In C. Plack, R. Fay, A. Oxenham, & A. Popper (Eds.), *Pitch: Neural coding and perception* (pp. 1–6). New York, NY: Springer.
- Plack, C., & Oxenham, A. (2005b). The psychophysics of pitch. In C. Plack, R. Fay, A. Oxenham, & A. Popper (Eds.), *Pitch: Neural coding and perception* (pp. 7–55). New York, NY: Springer.
- Plomp, R. (1967). Pitch of complex tones. *The Journal of the Acoustical Society of America*, 41(6), 1526–1533. <https://doi.org/10.1121/1.1910515>
- Pollack, I. (1969). Periodicity pitch for interrupted white noise-fact or artifact? *The Journal of the Acoustical Society of America*, 45(1), 237–238. <https://doi.org/10.1121/1.1911363>
- Pollack, I. (1975). Auditory informational masking. *The Journal of the Acoustical Society of America*, 57(S1), S5–S5. <https://doi.org/10.1121/1.1995329>
- Poulton, E. C. (1979). Models for biases in judging sensory magnitude. *Psychological Bulletin*, 86(4), 777–803. <https://doi.org/10.1037/0033-2909.86.4.777>
- Pourtois, G., Grandjean, D., Sander, D., & Vuilleumier, P. (2004). Electrophysiological correlates of rapid spatial orienting towards fearful faces. *Cerebral Cortex*, 14(6), 619–633. <https://doi.org/10.1093/cercor/bhh023>
- Pressnitzer, D., Graves, J., Chambers, C., de Gardelle, V., & Egré, P. (2018). Auditory perception: Laurel and Yanny together at last. *Current Biology*, 28(13), R739–R741. <https://doi.org/10.1016/j.cub.2018.06.002>
- Pylyshyn, Z. W. (1980). Computation and cognition: issues in the foundations of cognitive science. *Behavioral and Brain Sciences*, 3(1), 111–132. <https://doi.org/10.1017/S0140525X00002053>
- Pylyshyn, Z. W. (1984). *Computation and cognition: Toward a foundation for cognitive science*. Cambridge, MA: The MIT Press.
- Pylyshyn, Z. W. (1999). Is vision continuous with cognition? The case for cognitive impenetrability of visual perception. *Behavioral and Brain Sciences*, 22(3), 341–365. <https://doi.org/10.1017/S0140525X99002022>

## References

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- Quirin, M., Kent, M., Boksem, M. A. S., & Tops, M. (2015). Integration of negative experiences: A neuropsychological framework for human resilience. *Behavioral and Brain Sciences*, 38. <https://doi.org/10.1017/S0140525X14001666>
- Rabinowitz, N. C., Willmore, B. D. B., Schnupp, J. W. H., & King, A. J. (2011). Contrast gain control in auditory cortex. *Neuron*, 70(6), 1178–1191. <https://doi.org/10.1016/j.neuron.2011.04.030>
- Raftopoulos, A. (2001). Is perception informationally encapsulated? the issue of the theory-ladenness of perception. *Cognitive Science*, 25(3), 423–451. [https://doi.org/10.1207/s15516709cog2503\\_4](https://doi.org/10.1207/s15516709cog2503_4)
- Raftopoulos, A. (2009). *Cognition and perception: How do psychology and neural science inform philosophy?* Cambridge, MA: Mit Press.
- Raftopoulos, A. (2014). Does the emotional modulation of visual experience entail the cognitive penetrability or emotional penetrability of early vision? *Proceedings of the Annual Meeting of the Cognitive Science Society*, 36, 1216–1221. Retrieved from <https://escholarship.org/uc/item/0j97t3dt>
- Raftopoulos, A. (2016). Studies on cognitively driven attention suggest that late vision is cognitively penetrated, whereas early vision is not. *Behavioral and Brain Sciences*, 39. <https://doi.org/10.1017/S0140525X15002484>
- Rahnev, D., & Denison, R. N. (2018). Suboptimality in perceptual decision making. *Behavioral and Brain Sciences*, 41. <https://doi.org/10.1017/S0140525X18000936>
- Rammsayer, T. H., & Troche, S. J. (2012). On sex-related differences in auditory and visual sensory functioning. *Archives of Sexual Behavior*, 41(3), 583–590. <https://doi.org/10.1007/s10508-011-9880-8>
- Rao, R. P. N., & Ballard, D. H. (1999). Predictive coding in the visual cortex: a functional interpretation of some extra-classical receptive-field effects. *Nature Neuroscience*, 2(1), 79–87. <https://doi.org/10.1038/4580>
- Rauss, K., Schwartz, S., & Pourtois, G. (2011). Top-down effects on early visual processing in humans: A predictive coding framework. *Neuroscience & Biobehavioral Reviews*, 35(5), 1237–1253. <https://doi.org/10.1016/j.neubiorev.2010.12.011>
- Recio-Spinoso, A., & Cooper, N. P. (2013). Masking of sounds by a background noise – cochlear mechanical correlates. *The Journal of Physiology*, 591(10), 2705–2721. <https://doi.org/10.1113/jphysiol.2012.248260>
- Riener, C. R., Stefanucci, J. K., Proffitt, D. R., & Clore, G. (2011). An effect of mood on the perception of geographical slant. *Cognition & Emotion*, 25(1), 174–182. <https://doi.org/10.1080/02699931003738026>
- Robertson, D., & Manley, G. A. (1974). Manipulation of frequency analysis in the cochlear ganglion of the guinea pig. *Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology*, 91(4), 363–375. <https://doi.org/10.1007/BF00694467>
- Robinson, B. L., & McAlpine, D. (2009). Gain control mechanisms in the auditory pathway. *Current Opinion in Neurobiology*, 19(4), 402–407. <https://doi.org/10.1016/j.conb.2009.07.006>
- Robinson, D. (1988). Threshold of hearing as a function of age and sex for the typical unscreened population. *British Journal of Audiology*, 22(1), 5–20. <https://doi.org/10.3109/03005368809077793>
- Romo, R., & de Lafuente, V. (2013). Conversion of sensory signals into perceptual decisions. *Progress in Neurobiology*, 103, 41–75. <https://doi.org/10.1016/j.pneurobio.2012.03.007>

- Romo, R., & Salinas, E. (2003). Flutter discrimination: neural codes, perception, memory and decision making. *Nature Reviews Neuroscience*, 4(3), 203–218. <https://doi.org/10.1038/nrn1058>
- Rose, J. E., Brugge, J. F., Anderson, D. J., & Hind, J. E. (1967). Phase-locked response to low-frequency tones in single auditory nerve fibers of the squirrel monkey. *Journal of Neurophysiology*, 30(4), 769–793. <https://doi.org/10.1152/jn.1967.30.4.769>
- Rowe, G., Hirsh, J. B., & Anderson, A. K. (2007). Positive affect increases the breadth of attentional selection. *Proceedings of the National Academy of Sciences*, 104(1), 383–388. <https://doi.org/10.1073/pnas.0605198104>
- Rozin, P., & Millman, L. (1987). Family environment, not heredity, accounts for family resemblances in food preferences and attitudes: A twin study. *Appetite*, 8(2), 125–134. [https://doi.org/10.1016/S0195-6663\(87\)80005-3](https://doi.org/10.1016/S0195-6663(87)80005-3)
- Rozin, P., & Royzman, E. B. (2001). Negativity bias, negativity dominance, and contagion. *Personality and Social Psychology Review*, 5(4), 296–320. [https://doi.org/10.1207/s15327957pspr0504\\_2](https://doi.org/10.1207/s15327957pspr0504_2)
- Russ, B. E., Orr, L. E., & Cohen, Y. E. (2008). Prefrontal neurons predict choices during an auditory same-different task. *Current Biology*, 18(19), 1483–1488. <https://doi.org/10.1016/j.cub.2008.08.054>
- Russell, I. J., & Sellick, P. M. (1977). Tuning properties of cochlear hair cells. *Nature*, 267(5614), 858–860. <https://doi.org/10.1038/267858a0>
- Russell, J. A. (1989). Affect grid: A single-item scale of pleasure and arousal. *Journal of Personality and Social Psychology*, 57(3), 493–502. <https://doi.org/10.1037/0022-3514.57.3.493>
- Russell, J. A. (2003). Core affect and the psychological construction of emotion. *Psychological Review*, 110(1), 145–172. <https://doi.org/10.1037/0033-295x.110.1.145>
- Russell, J. A. (2009). Emotion, core affect, and psychological construction. *Cognition and Emotion*, 23(7), 1259–1283. <https://doi.org/10.1080/02699930902809375>
- Russell, J. A., & Barrett, L. F. (1999). Core affect, prototypical emotional episodes, and other things called emotion: Dissecting the elephant. *Journal of Personality and Social Psychology*, 76(5), 805–819. <https://doi.org/10.1037/0022-3514.76.5.805>
- Russell, J. A., & Carroll, J. M. (1999). On the bipolarity of positive and negative affect. *Psychological Bulletin*, 125(1), 3–30. Retrieved from 10.1037/0033-2909.125.1.3http://search.ebscohost.com/login.aspx?direct=true&db=pbh&AN=bul-125-1-3&site=ehost-live
- Russell, J. A., & Mehrabian, A. (1977). Evidence for a three-factor theory of emotions. *Journal of Research in Personality*, 11(3), 273–294. [https://doi.org/10.1016/0092-6566\(77\)90037-X](https://doi.org/10.1016/0092-6566(77)90037-X)
- Russell, J. A., & Pratt, G. (1980). A description of the affective quality attributed to environments. *Journal of Personality and Social Psychology*, 38(2), 311–322. <https://doi.org/10.1037/0022-3514.38.2.311>
- Russell, J. A., Weiss, A., & Mendelsohn, G. A. (1989). Affect grid: A single-item scale of pleasure and arousal. *Journal of Personality and Social Psychology*, 57(3), 493–502. <https://doi.org/10.1037/0022-3514.57.3.493>
- Saenz, M., & Langers, D. R. M. (2014). Tonotopic mapping of human auditory cortex. *Hearing Research*, 307, 42–52. <https://doi.org/10.1016/j.heares.2013.07.016>
- Scherer, K. R. (2005). What are emotions? And how can they be measured? *Social Science Information*, 44(4), 695–729. <https://doi.org/10.1177/0539018405058216>
- Scherer, K. R. (2009). Emotion theories and concepts (psychological perspectives). In D. Sander & K. R. Scherer (Eds.), *The Oxford companion to emotion and the affective sciences* (pp. 145–149). New York, NY: Oxford University Press.

## References

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- Scherer, K. R., & Zentner, M. R. (2001). Emotional effects of music: Production rules. In P. Juslin & J. Sloboda (Eds.), *Music and emotion: Theory and research*. (pp. 361–392). New York, NY: Oxford University Press.
- Scherer, L. D., & Larsen, R. J. (2011). Cross-modal evaluative priming: Emotional sounds influence the processing of emotion words. *Emotion, 11*(1), 203–208. <https://doi.org/10.1037/a0022588>
- Schnall, S. (2017). No magic bullet in sight: A reply to Firestone and Scholl (2017) and Durgin (2017). *Perspectives on Psychological Science, 12*(2), 347–349. <https://doi.org/10.1177/1745691617691948>
- Schneider, P., Sluming, V., Roberts, N., Scherg, M., Goebel, R., Specht, H. J., ... Rupp, A. (2005). Structural and functional asymmetry of lateral Heschl's gyrus reflects pitch perception preference. *Nature Neuroscience, 8*(9), 1241–1247. <https://doi.org/10.1038/nn1530>
- Schneider, P., & Wengenroth, M. (2009). The neural basis of individual holistic and spectral sound perception. *Contemporary Music Review, 28*(3), 315–328. <https://doi.org/10.1080/07494460903404402>
- Schneider, W., Eschman, A., & Zuccolotto, A. (2002). *E-prime user's guide*. Pittsburgh, PA: Psychology Software Tools Inc.
- Schouten, J. F. (1938). The perception of subjective tones. *Proceedings of the Koninklijke Nederlandse Akademie van Wetenschappen, 41*, 1086–1093.
- Schouten, J. F. (1940). The residue, a new component in subjective sound analysis. *Proceedings of the Koninklijke Nederlandse Akademie van Wetenschappen, 43*, 356–365.
- Schouten, J. F. (1970). The residue revisited. In R. Plomp & G. F. Smoorenburg (Eds.), *Frequency analysis and periodicity detection in hearing* (pp. 41–58). Leiden, The Netherlands: Sijthoff.
- Schouten, J. F., Ritsma, R. J., & Cardozo, B. L. (1962). Pitch of the residue. *The Journal of the Acoustical Society of America, 34*(9B), 1418–1424. <https://doi.org/10.1121/1.1918360>
- Schwarz, N., & Clore, G. L. (1983). Mood, misattribution, and judgments of well-being: Informative and directive functions of affective states. *Journal of Personality and Social Psychology, 45*(3), 513–523. <https://doi.org/10.1037/0022-3514.45.3.513>
- Schwarz, N., & Clore, G. L. (2007). Feelings and phenomenal experiences. In A. Kruglanski & E. Higgins (Eds.), *Social psychology: Handbook of basic principles* (pp. 385–407). New York: Guilford.
- Seebeck, A. (1841). Beobachtungen über einige bedingungen der entstehung von tönen. *Annalen der Physik, 129*(7), 417–436. <https://doi.org/10.1002/andp.18411290702>
- Seeley, W. W., Menon, V., Schatzberg, A. F., Keller, J., Glover, G. H., Kenna, H., ... Greicius, M. D. (2007). Dissociable intrinsic connectivity networks for salience processing and executive control. *The Journal of Neuroscience, 27*(9), 2349–2356. <https://doi.org/10.1523/jneurosci.5587-06.2007>
- Seifritz, E., Espósito, F., Neuhoff, J. G., Lüthi, A., Mustovic, H., Dammann, G., ... Di Salle, F. (2003). Differential sex-independent amygdala response to infant crying and laughing in parents versus nonparents. *Biological Psychiatry, 54*(12), 1367–1375. [https://doi.org/10.1016/S0006-3223\(03\)00697-8](https://doi.org/10.1016/S0006-3223(03)00697-8)
- Seither-Preisler, A., Johnson, L., Krumbholz, K., Nobbe, A., Patterson, R., Seither, S., & Lütkenhöner, B. (2007). Tone sequences with conflicting fundamental pitch and timbre changes are heard differently by musicians and nonmusicians. *Journal of Experimental Psychology: Human Perception and Performance, 33*(3), 743–751. <https://doi.org/10.1037/0096-1523.33.3.743>

- Selukumaran, K., Mulders, W. H. A. M., & Robertson, D. (2008). Unmasking effects of olivocochlear efferent activation on responses of inferior colliculus neurons. *Hearing Research*, 243(1-2), 35–46. <https://doi.org/10.1016/j.heares.2008.05.004>
- Servan-Schreiber, D., Printz, H., & Cohen, J. D. (1990). A network model of catecholamine effects: gain, signal-to-noise ratio, and behavior. *Science*, 249(4971), 892–895. <https://doi.org/10.1126/science.2392679>
- Shackleton, T. M., & Carlyon, R. P. (1994). The role of resolved and unresolved harmonics in pitch perception and frequency modulation discrimination. *The Journal of the Acoustical Society of America*, 95(6), 3529–3540. <https://doi.org/10.1121/1.409970>
- Siddle, D. A., Morrish, R. B., White, K. D., & Mangan, G. L. (1969). Relation of visual sensitivity to extraversion. *Journal of Experimental Research in Personality*, 3(4), 264–267.
- Siegel, E. H., & Stefanucci, J. K. (2011). A little bit louder now: Negative affect increases perceived loudness. *Emotion*, 11(4), 1006–1011. <https://doi.org/10.1037/a0024590>
- Siegel, E. H., Wormwood, J. B., Quigley, K. S., & Barrett, L. F. (2018). Seeing what you feel: Affect drives visual perception of structurally neutral faces. *Psychological Science*, 29(4), 496–503. <https://doi.org/10.1177/0956797617741718>
- Siegel, R. J. (1965). A replication of the mel scale of pitch. *The American Journal of Psychology*, 78(4), 615–620. <https://doi.org/10.2307/1420924>
- Siegel, S., & Silins, N. (2014). The epistemology of perception. In M. Matthen (Ed.), *The Oxford handbook of philosophy of perception*. doi: 10.1093/oxfordhb/9780199600472.013.040. <https://doi.org/10.1093/oxfordhb/9780199600472.013.040>
- Siemer, M. (2001). Mood-specific effects on appraisal and emotion judgements. *Cognition and Emotion*, 15(4), 453–485. <https://doi.org/10.1080/02699930126083>
- Simonsohn, U. (2015). Small telescopes: Detectability and the evaluation of replication results. *Psychological Science*, 26(5), 559–569. <https://doi.org/10.1177/0956797614567341>
- Slee, S. J., & David, S. V. (2015). Rapid task-related plasticity of spectrotemporal receptive fields in the auditory midbrain. *The Journal of Neuroscience*, 35(38), 13090–13102. <https://doi.org/10.1523/jneurosci.1671-15.2015>
- Slepian, M. L., & Ambady, N. (2014). Simulating sensorimotor metaphors: Novel metaphors influence sensory judgments. *Cognition*, 130(3), 309–314. <https://doi.org/10.1016/j.cognition.2013.11.006>
- Smith, D. W., Aouad, R., & Keil, A. (2012). Cognitive task demands modulate the sensitivity of the human cochlea. *Frontiers in Psychology*, 3. <https://doi.org/10.3389/fpsyg.2012.00030>
- Smith, D. W., & Keil, A. (2015). The biological role of the medial olivocochlear efferents in hearing: Separating evolved function from exaptation. *Frontiers in Systems Neuroscience*, 9. <https://doi.org/10.3389/fnsys.2015.00012>
- Smith, S. L. (1968). Extraversion and sensory threshold. *Psychophysiology*, 5(3), 293–299. <https://doi.org/10.1111/j.1469-8986.1968.tb02825.x>
- Smoorenburg, G. F. (1970). Pitch perception of two-frequency stimuli. *Journal of the Acoustical Society of America*, 48(4B), 924–942. <https://doi.org/10.1121/1.1912232>
- Stallen, P. J. M. (1999). A theoretical framework for environmental noise annoyance. *Noise and Health*, 1(3), 69–79. Retrieved from <http://www.noiseandhealth.org/article.asp?issn=1463-1741;year=1999;volume=1;issue=3;spage=69;epage=79;aulast=Stallen>
- Stefanucci, J. K., Gagnon, K. T., & Lessard, D. A. (2011). Follow your heart: Emotion adaptively influences perception. *Social and Personality Psychology Compass*, 5(6), 296–308. <https://doi.org/10.1111/j.1751-9004.2011.00352.x>
- Stefanucci, J. K., & Proffitt, D. R. (2009). The roles of altitude and fear in the perception of height. *Journal of Experimental Psychology: Human Perception and Performance*, 35(2),

## References

---

- 424–438. <https://doi.org/10.1037/a0013894>
- Stefanucci, J. K., & Storbeck, J. (2009). Don't look down: Emotional arousal elevates height perception. *Journal of Experimental Psychology: General*, 138(1), 131–145. <https://doi.org/10.1037/a0014797>
- Sterzer, P., & Kleinschmidt, A. (2010). Anterior insula activations in perceptual paradigms: Often observed but barely understood. *Brain Structure and Function*, 214(5), 611–622. <https://doi.org/10.1007/s00429-010-0252-2>
- Stevens, S. S., Volkmann, J., & Newman, E. B. (1937). A scale for the measurement of the psychological magnitude pitch. *The Journal of the Acoustical Society of America*, 8(3), 185–190. <https://doi.org/10.1121/1.1915893>
- Stokes, D. (2013). Cognitive penetrability of perception. *Philosophy Compass*, 8(7), 646–663. <https://doi.org/10.1111/phc3.12043>
- Stokes, D. (2018). Attention and the cognitive penetrability of perception. *Australasian Journal of Philosophy*, 96(2), 303–318. <https://doi.org/10.1080/00048402.2017.1332080>
- Stolarova, M., Keil, A., & Moratti, S. (2006). Modulation of the C1 visual event-related component by conditioned stimuli: Evidence for sensory plasticity in early affective perception. *Cerebral Cortex*, 16(6), 876–887. <https://doi.org/10.1093/cercor/bhj031>
- Storrs, K. R. (2015). Are high-level aftereffects perceptual? *Frontiers in Psychology*, 6. <https://doi.org/10.3389/fpsyg.2015.00157>
- Strait, D. L., Kraus, N., Parbery-Clark, A., & Ashley, R. (2010). Musical experience shapes top-down auditory mechanisms: Evidence from masking and auditory attention performance. *Hearing Research*, 261(1-2), 22–29. <https://doi.org/10.1016/j.heares.2009.12.021>
- Stützgen, M., Schwarz, C., & Jäkel, F. (2011). Mapping spikes to sensations. *Frontiers in Neuroscience*, 5. <https://doi.org/10.3389/fnins.2011.00125>
- Swets, J. A. (1959). Indices of signal detectability obtained with various psychophysical procedures. *The Journal of the Acoustical Society of America*, 31(4), 511–513. <https://doi.org/10.1121/1.1907744>
- Swets, J. A., Tanner, W. P., Jr., & Birdsall, T. G. (1961). Decision processes in perception. *Psychological Review*, 68(5), 301–340. <https://doi.org/10.1037/h0040547>
- Tamir, M., & Robinson, M. D. (2007). The happy spotlight: Positive mood and selective attention to rewarding information. *Personality and Social Psychology Bulletin*, 33(8), 1124–1136. <https://doi.org/10.1177/0146167207301030>
- Tan, M. N., Robertson, D., & Hammond, G. R. (2008). Separate contributions of enhanced and suppressed sensitivity to the auditory attentional filter. *Hearing Research*, 241(1-2), 18–25. <https://doi.org/10.1016/j.heares.2008.04.003>
- Tasaki, I. (1954). Nerve impulses in individual auditory nerve fibers of guinea pig. *Journal of Neurophysiology*, 17(2), 97–122. <https://doi.org/10.1152/jn.1954.17.2.97>
- Teige-Mocigemba, S., & Klauer, K. C. (2008). ‘Automatic’ evaluation? Strategic effects on affective priming. *Journal of Experimental Social Psychology*, 44(5), 1414–1417. <https://doi.org/10.1016/j.jesp.2008.04.004>
- Terhardt, E. (1974). Pitch, consonance, and harmony. *The Journal of the Acoustical Society of America*, 55(5), 1061–1069. <https://doi.org/10.1121/1.1914648>
- Terreros, G., & Delano, P. H. (2015). Corticofugal modulation of peripheral auditory responses. *Frontiers in Systems Neuroscience*, 9. <https://doi.org/10.3389/fnsys.2015.00134>
- Teufel, C., & Nanay, B. (2017). How to (and how not to) think about top-down influences on visual perception. *Consciousness and Cognition*, 47, 17–25. <https://doi.org/10.1016/j.concog.2016.05.008>

- Thayer, R. E. (1996). *The origin of everyday moods: Managing energy, tension, and stress*. New York, NY: Oxford University Press.
- Thurlow, W. R., & Rawlings, I. L. (1959). Recognition thresholds for simple tonal patterns. *Perceptual and Motor Skills*, 9(2), 295–301. <https://doi.org/10.2466/pms.1959.9.h.295>
- Tops, M., & Boksem, M. A. S. (2010). Absorbed in the task: Personality measures predict engagement during task performance as tracked by error negativity and asymmetrical frontal activity. *Cognitive, Affective, & Behavioral Neuroscience*, 10(4), 441–453. <https://doi.org/10.3758/cabn.10.4.441>
- Tops, M., & Boksem, M. A. S. (2012). “What’s that?” “What went wrong?” positive and negative surprise and the rostral-ventral to caudal-dorsal functional gradient in the brain. *Frontiers in Psychology*, 3. <https://doi.org/10.3389/fpsyg.2012.00021>
- Tops, M., Boksem, M. A. S., Luu, P., & Tucker, D. M. (2010). Brain substrates of behavioral programs associated with self-regulation. *Frontiers in Psychology*, 1. <https://doi.org/10.3389/fpsyg.2010.00152>
- Tops, M., Boksem, M. A. S., Quirin, M., IJzerman, H., & Koole, S. L. (2014). Internally directed cognition and mindfulness: an integrative perspective derived from predictive and reactive control systems theory. *Frontiers in Psychology*, 5. <https://doi.org/10.3389/fpsyg.2014.00429>
- Tops, M., & Matsumoto, H. (2011). Hypocortisolism is related to environmental stimulus processing sensitivity and psychosomatic complaints. *Psychophysiology*, 48(Suppl. 1), S88. <https://doi.org/10.1111/j.1469-8986.2011.01259.x>
- Tops, M., Montero-Marín, J., & Quirin, M. (2016). Too much of a good thing: A neuro-dynamic personality model explaining engagement and its protective inhibition. In S. Kim, J. Reeve, & M. Bong (Eds.), *Advances in motivation and achievement: Vol 19. Recent developments in neuroscience research on human motivation* (pp. 283–319). Bingley, UK: Emerald Group Publishing Limited. <https://doi.org/10.1108/S0749-742320160000019012>
- Totah, N. K. B., Logothetis, N. K., & Eschenko, O. (2019). Noradrenergic ensemble-based modulation of cognition over multiple timescales. *Brain Research*, 1709, 50–66. <https://doi.org/10.1016/j.brainres.2018.12.031>
- Tsunada, J., Liu, A. S. K., Gold, J. I., & Cohen, Y. E. (2016). Causal contribution of primate auditory cortex to auditory perceptual decision-making. *Nature Neuroscience*, 19, 135–142. <https://doi.org/10.1038/nn.4195>
- Usher, M., Cohen, J. D., Servan-Schreiber, D., Rajkowski, J., & Aston-Jones, G. (1999). The role of locus coeruleus in the regulation of cognitive performance. *Science*, 283(5401), 549–554. <https://doi.org/10.1126/science.283.5401.549>
- Vance, J., & Stokes, D. (2017). Noise, uncertainty, and interest: Predictive coding and cognitive penetration. *Consciousness and Cognition*, 47, 86–98. <https://doi.org/10.1016/j.concog.2016.06.007>
- van Kamp, I., Job, R. F. S., Hatfield, J., Haines, M., Stellato, R. K., & Stansfeld, S. A. (2004). The role of noise sensitivity in the noise-response relation: A comparison of three international airport studies. *The Journal of the Acoustical Society of America*, 116(6), 3471–3479. <https://doi.org/10.1121/1.1810291>
- van Steenbergen, H., Band, G. P., & Hommel, B. (2010). In the mood for adaptation: How affect regulates conflict-driven control. *Psychological Science*, 21(11), 1629–1634. <https://doi.org/10.1177/0956797610385951>
- van Tol, M.-J., Veer, I. M., van der Wee, N. J. A., Aleman, A., van Buchem, M. A., Rombouts, S. A. R. B., ... Johnstone, T. (2013). Whole-brain functional connectivity during emotional word classification in medication-free major depressive disorder: Abnormal

## References

---

- salience circuitry and relations to positive emotionality. *NeuroImage: Clinical*, 2, 790–796. <https://doi.org/10.1016/j.nicl.2013.05.012>
- Van Vaerenbergh, Y., & Thomas, T. D. (2013). Response styles in survey research: A literature review of antecedents, consequences, and remedies. *International Journal of Public Opinion Research*, 25(2), 195–217. <https://doi.org/10.1093/ijpor/eds021>
- van Wouwe, N. C., Band, G. P. H., & Ridderinkhof, K. R. (2009). Positive affect modulates flexibility and evaluative control. *Journal of Cognitive Neuroscience*, 23(3), 524–539. <https://doi.org/10.1162/jocn.2009.21380>
- Västfjäll, D. (2001). Emotion induction through music: A review of the musical mood induction procedure. *Musicae Scientiae*, 5(Suppl. 1), 173–211. <https://doi.org/10.1177/10298649020050s107>
- Västfjäll, D. (2002). Influences of current mood and noise sensitivity on judgments of noise annoyance. *The Journal of Psychology*, 136(4), 357. <https://doi.org/10.1080/00223980209604163>
- Västfjäll, D., Kleiner, M., & Gärling, T. (2003). Affective reactions to interior aircraft sounds. *Acta Acustica united with Acustica*, 89(4), 693–701. Retrieved from <https://www.ingentaconnect.com/content/dav/aaua/2003/00000089/00000004/art00014>
- Västfjäll, D., Slovic, P., Burns, W. J., Erlandsson, A., Koppel, L., Asutay, E., & Tinghög, G. (2016). The arithmetic of emotion: Integration of incidental and integral affect in judgments and decisions. *Frontiers in Psychology*, 7. <https://doi.org/10.3389/fpsyg.2016.00325>
- von Békésy, G. (1980). *Experiments in hearing* (E. G. Wever, ed., Trans.). Huntington, NY: Robert E. Krieger Publishing Company (Original work published in 1960).
- Voss, A., Rothermund, K., & Brandtstädtter, J. (2008). Interpreting ambiguous stimuli: Separating perceptual and judgmental biases. *Journal of Experimental Social Psychology*, 44(4), 1048–1056. <https://doi.org/10.1016/j.jesp.2007.10.009>
- Vuilleumier, P. (2005). How brains beware: Neural mechanisms of emotional attention. *Trends in Cognitive Sciences*, 9(12), 585–594. <https://doi.org/10.1016/j.tics.2005.10.011>
- Walker, K. M. M., Bizley, J. K., King, A. J., & Schnupp, J. W. H. (2011). Cortical encoding of pitch: Recent results and open questions. *Hearing Research*, 271(1-2), 74–87. <https://doi.org/10.1016/j.heares.2010.04.015>
- Wallace, M. N., Shackleton, T. M., & Palmer, A. R. (2002). Phase-locked responses to pure tones in the primary auditory cortex. *Hearing Research*, 172(1), 160–171. [https://doi.org/10.1016/S0378-5955\(02\)00580-4](https://doi.org/10.1016/S0378-5955(02)00580-4)
- Wang, X. (2013). The harmonic organization of auditory cortex. *Frontiers in Systems Neuroscience*, 7. <https://doi.org/10.3389/fnsys.2013.00114>
- Wang, X., & Bendor, D. (2010). Pitch. In A. R. Palmer & A. Rees (Eds.), *The Oxford handbook of auditory science: The auditory brain* (pp. 149–172). New York, NY: Oxford University Press. <https://doi.org/10.1093/oxfordhb/9780199233281.013.0007>
- Wang, X., Lu, T., Bendor, D., & Bartlett, E. (2008). Neural coding of temporal information in auditory thalamus and cortex. *Neuroscience*, 154(1), 294–303. <https://doi.org/10.1016/j.neuroscience.2008.03.065>
- Watson, C. S. (2005). Some comments on informational masking. *Acta Acustica united with Acustica*, 91(3), 502–512. Retrieved from <https://www.ingentaconnect.com/content/dav/aaua/2005/00000091/00000003/art00012>
- Watson, C. S., Kelly, W. J., & Wroton, H. W. (1976). Factors in the discrimination of tonal patterns. II. Selective attention and learning under various levels of stimulus uncertainty.

- The Journal of the Acoustical Society of America*, 60(5), 1176–1186. <https://doi.org/10.1121/1.381220>
- Watson, D., & Tellegen, A. (1985). Toward a consensual structure of mood. *Psychological Bulletin*, 98(2), 219–235. <https://doi.org/10.1037/0033-2909.98.2.219>
- Weger, U. W., Meier, B. P., Robinson, M. D., & Inhoff, A. W. (2007). Things are sounding up: Affective influences on auditory tone perception. *Psychonomic Bulletin & Review*, 14(3), 517–521. <https://doi.org/10.3758/bf03194100>
- Weisz, N., Kostadinov, B., Dohrmann, K., Hartmann, T., & Schlee, W. (2007). Tracking short-term auditory cortical plasticity during classical conditioning using frequency-tagged stimuli. *Cerebral Cortex*, 17(8), 1867–1876. <https://doi.org/10.1093/cercor/bhl095>
- Wever, E. G., & Bray, C. W. (1930). Present possibilities for auditory theory. *Psychological Review*, 37(5), 365–380. <https://doi.org/10.1037/h0075002>
- Wiethoff, S., Wildgruber, D., Kreifelts, B., Becker, H., Herbert, C., Grodd, W., & Ethofer, T. (2008). Cerebral processing of emotional prosody—Influence of acoustic parameters and arousal. *NeuroImage*, 39(2), 885–893. <https://doi.org/10.1016/j.neuroimage.2007.09.028>
- Wilson, J. P., & Johnstone, J. R. (1975). Basilar membrane and middle-ear vibration in guinea pig measured by capacitive probe. *The Journal of the Acoustical Society of America*, 57(3), 705–723. <https://doi.org/10.1121/1.380472>
- Wilson-Mendenhall, C. D., Barrett, L. F., & Barsalou, L. W. (2013). Situating emotional experience. *Frontiers in Human Neuroscience*, 7. <https://doi.org/10.3389/fnhum.2013.00764>
- Wiltink, J., Vogelsang, U., & Beutel, M. E. (2006). Temperament and personality: the German version of the Adult Temperament Questionnaire (ATQ). *GMS Psycho-Social Medicine*, 3(Doc10), 1–10. Retrieved from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2736500/>
- Wispelwey, P. (2012, September 9). [Video]. Interview by Matthijs van Nieuwkerk. *De Wereld Draait Door* [Video]. Retrieved from <http://dewerelddraaitdoor.vara.nl/media/185377>
- Witt, J. K., Taylor, J. E. T., Sugovic, M., & Wixted, J. T. (2015). Signal detection measures cannot distinguish perceptual biases from response biases. *Perception*, 44(3), 289–300. <https://doi.org/10.1080/p7908>
- Witteman, J., Van Heuven, V. J. P., & Schiller, N. O. (2012). Hearing feelings: A quantitative meta-analysis on the neuroimaging literature of emotional prosody perception. *Neuropsychologia*, 50(12), 2752–2763. <https://doi.org/10.1016/j.neuropsychologia.2012.07.026>
- Witthöft, M., Rist, F., & Bailer, J. (2008). Evidence for a specific link between the personality trait of absorption and idiopathic environmental intolerance. *Journal of Toxicology and Environmental Health, Part A*, 71(11-12), 795–802. <https://doi.org/10.1080/15287390801985687>
- Witzel, C., Valkova, H., Hansen, T., & Gegenfurtner, K. R. (2011). Object knowledge modulates colour appearance. *i-Perception*, 2(1), 13–49. <https://doi.org/10.1080/i0396>
- Wixted, J. T. (2020). The forgotten history of signal detection theory. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 46(2), 201–233. <https://doi.org/10.1037/xlm0000732>
- Woods, D. L., Alain, C., Diaz, R., Rhodes, D., & Ogawa, K. H. (2001). Location and frequency cues in auditory selective attention. *Journal of Experimental Psychology: Human Perception and Performance*, 27(1), 65–74. <https://doi.org/10.1037/0096-1523.27.1.65>

## References

---

- Wu, W. (2017). Shaking up the mind's ground floor: The cognitive penetration of visual attention. *Journal of Philosophy*, 114(1), 5–32. <https://doi.org/10.5840/jphil201711411>
- Yerkes, R. M., & Dodson, J. D. (1908). The relation of strength of stimulus to rapidity of habit-formation. *Journal of Comparative Neurology and Psychology*, 18, 459–482. <https://doi.org/10.1002/cne.920180503>
- Yeshurun, Y., Carrasco, M., & Maloney, L. T. (2008). Bias and sensitivity in two-interval forced choice procedures: Tests of the difference model. *Vision Research*, 48(17), 1837–1851. <https://doi.org/10.1016/j.visres.2008.05.008>
- Yik, M. S. M., Russell, J. A., & Barrett, L. F. (1999). Structure of self-reported current affect: Integration and beyond. *Journal of Personality and Social Psychology*, 77(3), 600–619. <https://doi.org/10.1037/0022-3514.77.3.600>
- Yip, M. (2002). *Tone*. Cambridge, UK: Cambridge University Press.
- Zajonc, R. B. (1968). Attitudinal effects of mere exposure. *Journal of Personality and Social Psychology Monographs*, 9 (2, Pt. 2), 1–27. <https://doi.org/10.1037/h0025848>
- Zajonc, R. B. (1980). Feeling and thinking: Preferences need no inferences. *American Psychologist*, 35(2), 151–175. <https://doi.org/10.1037/0003-066X.35.2.151>
- Zeimbekis, J., & Raftopoulos, A. (2015). The cognitive penetrability of perception: An overview. In J. Zeimbekis & A. Raftopoulos (Eds.), *The cognitive penetrability of perception: New philosophical perspectives* (pp. 1–56). New York, NY: Oxford University Press.
- Zwicker, E., & Fastl, H. (1999). *Psychoacoustics: Facts and models* (2nd ed.). Berlin Heidelberg, Germany: Springer-Verlag.