Speech

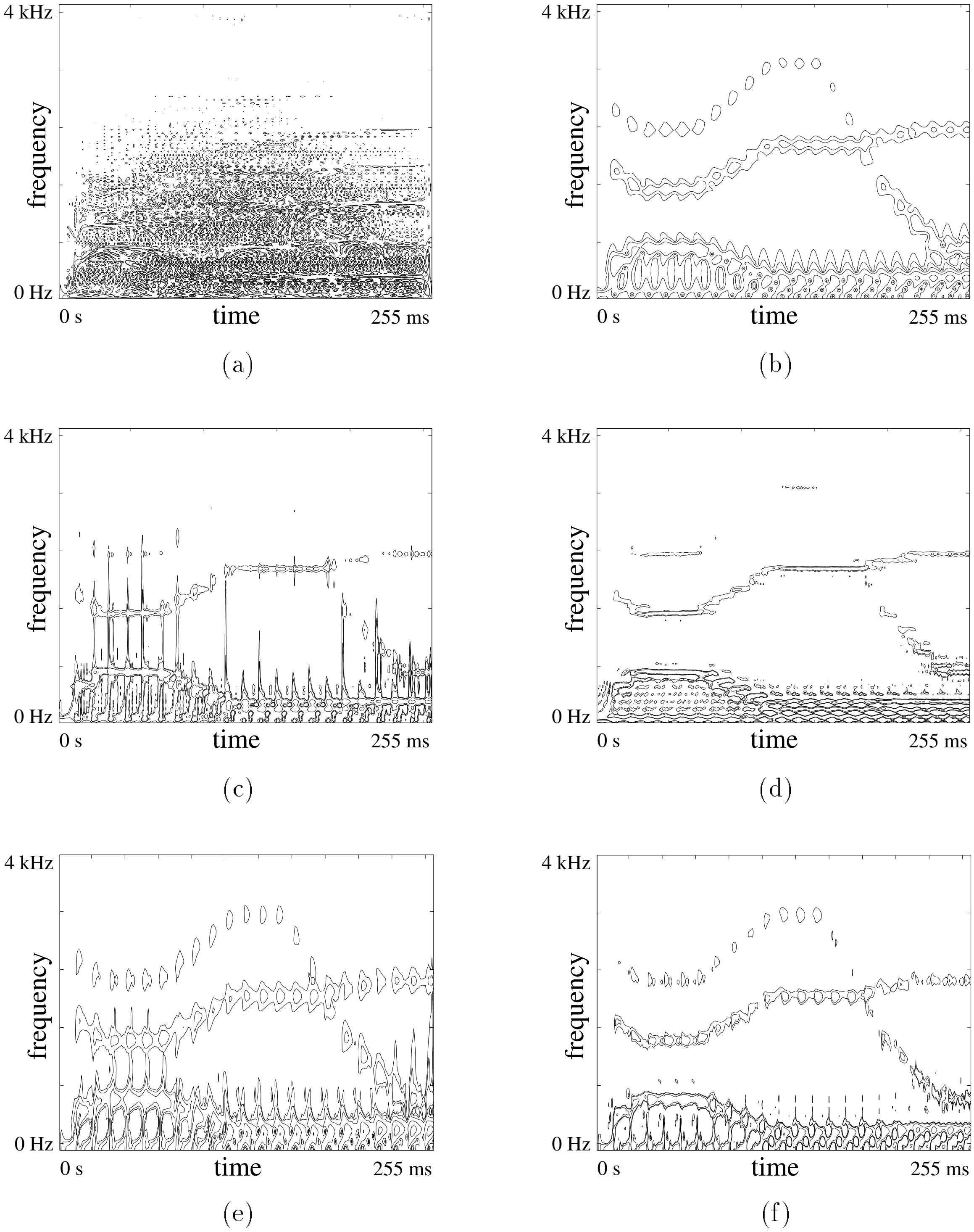

Figure 4: *Comparison of several TFRs of a synthetic speech signal (the word* caillou *from the French). (a) Wigner distribution. (b) Spectrogram. (c) Choi-Williams distribution* [2]. *(d) Cone-kernel representation* [3]. *(e) AOK TFR* [5]. *(f) Cone AOK TFR.*

References

[1] L. Cohen, *Time-Frequency Analysis*. Englewood Cliffs, NJ: Prentice-Hall, 1995.

[2] H. I. Choi and W. J. Williams, "Improved time-frequency representation of multicomponent signals using exponential kernels," *IEEE Trans. Acoust., Speech, Signal Processing*, vol. 37, pp. 862–871, June 1989.

[3] Y. Zhao, L. E. Atlas, and R. J. Marks, "The use of cone-shaped kernels for generalized time-frequency representations of nonstationary signals," *IEEE Trans. Acoust., Speech, Signal Processing*, vol. 38, pp. 1084–1091, July 1990.

[4] R. G. Baraniuk and D. L. Jones, "A radially Gaussian, signal-dependent time-frequency representation," *Signal Processing*, vol. 32, pp. 263–284, June 1993.

[5] D. L. Jones and R. G. Baraniuk, "An adaptive optimal-kernel time-frequency representation," *IEEE Trans. Signal Processing*, vol. 43, pp. 2361–2371, Oct. 1995.

[6] D. J. Boorer, *Common Bird Songs*. New York: Dover, 1984. (Audio cassette).