A preliminary experiment on the perceptual basis for musical instrument families

Experimental evidence is presented for the existence of perceptual families of instruments. This evidence is the result of confusions in identifying the instruments that produced tones when these tones were played back at speeds higher than that at which they were recorded. The string family consists of violins, violas, cellos, and double basses. The brass family consists of trumpets, trombones, tubas, and French horns. The double reed family consists of oboes, English horns, and bassoons, with the bassoons only very weakly linked to the other members of its family. The families are listed in order of decreasing tightness. Very tight subfamilies are formed of the following pairs; violin-viola, cello-double bass, oboe-English horn, trumpet-trombone.

Authors: Clark, Jr., Melville; Robertson, Paul T.; Luce, David
Affiliation: Research Laboratory of Electronics, Massachusetts Institute of Technology, Cambridge, MA
JAES Volume 12 Issue 3 pp. 199-203; July 1964
Publication Date: July 1, 1964
Permalink: http://www.aes.org/e-lib/browse.cfm?elib=742

Click to purchase paper as a non-member or login as an AES member. If your company or school subscribes to the E-Library then switch to the institutional version. If you are not an AES member and would like to subscribe to the E-Library then Join the AES!

This paper costs $33 for non-members and is free for AES members and E-Library subscribers.

Learn more about the AES E-Library

E-Library Location: (CD aes2) /jrnl5367/1964/6524.pdf

Start a discussion about this paper!