A multi-parametric approach is a more effective means to provide diagnostic information. Compared to retrodiction alone, multi-parametric approaches of different population yields a better segregation of subject populations via PCA. The figure of the right was made using PCA on CM4 vibrotactile data and clearly separates concussion (orange) versus control (blue) individuals. Hoteling’s t-square statistic indicates with 99% confidence that these 2 populations are statistically distinct. Integrating multiple parameters via PCA demonstrates the sensitivity of the method for tracking recovery of concussion subjects.

Summary
A low cost, portable and efficient method of assessing CNS health, that can be conducted rapidly (each test is 2-3 minutes) could prove to be an extremely useful method for a number of neurological disorders.

Specificity of the analysis method.
Direct comparison of the migraine population with the concussion population (presented in the beginning of this Approach section) demonstrates that we are not simply observing alterations from normative values, but that a discrete condition (e.g., concussion) can be distinguished from another neurological deivation (e.g., migraine). Different CNS status profiles, that were evoked by different response to the same battery of protocols administered to both groups, generate distinct characteristics of individuals. We anticipate that application of these methods will yield similar differences between types of headache that we propose to investigate.

References

Multi-parametric approaches
A multi-parametric approach is a more effective means to provide diagnostic information. Compared to retrodiction alone, multi-parametric approaches of different population yields a better segregation of subject populations via PCA. The figure of the right was made using PCA on CM4 vibrotactile data and clearly separates concussion (orange) versus control (blue) individuals. Hoteling’s t-square statistic indicates with 99% confidence that these 2 populations are statistically distinct. Integrating multiple parameters via PCA demonstrates the sensitivity of the method for tracking recovery of concussion subjects.

Summary
A low cost, portable and efficient method of assessing CNS health, that can be conducted rapidly (each test is 2-3 minutes) could prove to be an extremely useful method for a number of neurological disorders.

Specificity of the analysis method.
Direct comparison of the migraine population with the concussion population (presented in the beginning of this Approach section) demonstrates that we are not simply observing alterations from normative values, but that a discrete condition (e.g., concussion) can be distinguished from another neurological deivation (e.g., migraine). Different CNS status profiles, that were evoked by different response to the same battery of protocols administered to both groups, generate distinct characteristics of individuals. We anticipate that application of these methods will yield similar differences between types of headache that we propose to investigate.

References

Multi-parametric approaches
A multi-parametric approach is a more effective means to provide diagnostic information. Compared to retrodiction alone, multi-parametric approaches of different population yields a better segregation of subject populations via PCA. The figure of the right was made using PCA on CM4 vibrotactile data and clearly separates concussion (orange) versus control (blue) individuals. Hoteling’s t-square statistic indicates with 99% confidence that these 2 populations are statistically distinct. Integrating multiple parameters via PCA demonstrates the sensitivity of the method for tracking recovery of concussion subjects.

Summary
A low cost, portable and efficient method of assessing CNS health, that can be conducted rapidly (each test is 2-3 minutes) could prove to be an extremely useful method for a number of neurological disorders.

Specificity of the analysis method.
Direct comparison of the migraine population with the concussion population (presented in the beginning of this Approach section) demonstrates that we are not simply observing alterations from normative values, but that a discrete condition (e.g., concussion) can be distinguished from another neurological deivation (e.g., migraine). Different CNS status profiles, that were evoked by different response to the same battery of protocols administered to both groups, generate distinct characteristics of individuals. We anticipate that application of these methods will yield similar differences between types of headache that we propose to investigate.

References