EXPERIMENTAL DESIGNS TO EVALUATE ANALYTIC AND AFFECTIVE ATTITUDES IN SENSORY TRIALS

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Sensory trials are used to evoke, measure, analyse and interpret sensory perceptions using either an *analytic* attitude in consumers (i.e. difference tests) or an *affective* attitude (i.e. preference tests). Previous work has shown that consumers are more sensitive to product differences when using the affective attitude to report perceptions. Sensory trials utilise experimental design to accurately assess product differences whilst accommodating other sources of variation such as consumer and sequence effects and the order of presentation of samples in difference (triangle) and preference (paired) tests. Experimental designs that efficiently accommodate order effects in preference tests provide an important extension to the common Bradley-Terry analysis. In triangle tests, results are usually averaged over product presentation orders but efficient experimental designs can be used to investigate order differences. A large-scale sensory study conducted by Food Science Australia to compare the sensitivity of the analytic and affective approaches will be used to demonstrate the use of these designs.