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Nuts just take up space where the chocolate ought to be: Food complexity and oral breakdown

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Oral processing, from first bite to the point of swallow, potentially increases, then decreases the structural and textural complexity of a solid food material. This can be seen most dramatically in a dynamic technique such as Temporal Dominance of Sensation (TDS) where consensus about perceived texture appears strong at the start and end of oral processing, and more chaotic in the middle period. Both product-specific and consumer-specific factors influence this trajectory, as fracture dominated properties transition to those dominated by rheology, and chewing action and efficiency alters the breakdown pathway. "Complexity", in this context, has both a structural and a sensory component, and this presentation will cover some of the recent work at the University of Auckland in this area. Structural analysis of chocolate boluses has been challenging and illustrates well the issues faced with isolating product and consumer factors. Also we have shown an impact of complexity on satiation, but still have a long way to go to reveal the mechanisms underpinning the action.