



UNIVERSITY OF LEEDS

This is a repository copy of *New approach to food difficulty perception: food structure, food oral processing and individual's physical strength*.

White Rose Research Online URL for this paper:
<http://eprints.whiterose.ac.uk/97509/>

Version: Accepted Version

Article:

Laguna, L, Asensio Barrowclough, R, Chen, J et al. (1 more author) (2016) New approach to food difficulty perception: food structure, food oral processing and individual's physical strength. *Journal of Texture Studies*, 47 (5). pp. 413-422. ISSN 0022-4901

<https://doi.org/10.1111/jtxs.12190>

Reuse

Unless indicated otherwise, fulltext items are protected by copyright with all rights reserved. The copyright exception in section 29 of the Copyright, Designs and Patents Act 1988 allows the making of a single copy solely for the purpose of non-commercial research or private study within the limits of fair dealing. The publisher or other rights-holder may allow further reproduction and re-use of this version - refer to the White Rose Research Online record for this item. Where records identify the publisher as the copyright holder, users can verify any specific terms of use on the publisher's website.

Takedown

If you consider content in White Rose Research Online to be in breach of UK law, please notify us by emailing eprints@whiterose.ac.uk including the URL of the record and the reason for the withdrawal request.



eprints@whiterose.ac.uk
<https://eprints.whiterose.ac.uk/>

Captions

Figure 1. Determination of chewing cycles (a) and time at swallow (b).

Figure 2. Penetration behaviour of different food samples.

Figure 3. Influence of maximum force at break (texture analyser) on difficulty perception (visual analogue scale) and on the oral residence time (video recording), respectively.

Figure 4. Relationship between difficulty perceived and oral forces (tongue pressure and bite force).

Figure 5. Relationship between hand, tongue and bite forces with the number of chews required to swallow a food product.