

# **Surrealizing MEAT**

## **Making meat realer (and better?) through technoscience**

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ONLINE

**Sophia Efstathiou, Senior Researcher NTNU, &  
Visiting Researcher, University of Athens**

**Catherine Kendig, Associate Professor, Michigan  
State University/ NSF PI: Epistemic and Ethical  
Functions of Categories in the Agricultural  
Sciences**



# Thesis : reality

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Reality is performatively constituted.

Reality is a process

- of performing the real
  - of realing
  - of achieving realness

# Thesis : meat surreality

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Scientific work to produce meat analogues is a process of surrealizing meat.

Surrealed meat is in some ways realer, and it can be better, than conventional meat.

# Efstathiou 2022

“Performing ‘meat’: Meat replacement as drag”

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MEAT reality is performatively constituted  
--and it can be constituted differently.

# Efstathiou & Kendig

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meat REALITY is performatively constituted  
--and it can be constituted differently.

# What is real?

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- Standard position: the ‘noumenal’ , ‘out there’, mind-independent, correspondence
- Non-foundationalist approaches
  - Pragmatic realism (Chang): ‘phenomenal’, operational, coherence, ‘suck it and see’ (2016, 2022)
  - Perspectivism
    - Perspectival realism (Massimi 2022)
    - Amerindian perspectivism (Viveiros de Castro 1998)
- just conventionalism? (Chakravarthy 2023)

# Realing

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Realing is the process of performing and achieving  
realness.

# Executive realness



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# Reality vs. Realness

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- Concept of realness: key to Ballroom
  - How close one is to “blending in” or “passing” as real
- Realness assumes reality as something that can be achieved
  - Achieved through performance: work
- KEY for emancipatory/revisionary work aimed at remaking and resisting oppressive realities

# Realing as always already surrealing

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Realing is a process of performing and achieving realness.

This can be analysed as surrealing:

building on a vision, or dream of reality, vs. reality “itself”  
(what is that anyway?)

### 3. Applying to meat

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Meat replacements as achieving meat realness.

OR --

Meat replacements as realing and surrealizing  
meat.

# ‘Meat’ performed in food science

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- **Structure - fibrous**
- Composition – proteins, lipids, water, ....
- Functionality – cooking loss and textural changes
- Mouthfeel – melting, crystallization
- Flavour – umami taste
- Odour – aroma when cooked
- Colour – red turns brown when heated

(He et al 2020; McClements & Grossmann 2021)

# Achieving 'meat' realness through food science and biotech

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**Table 2**

Structures obtained after heating and simultaneous heating and shearing of blends made from SPI, WG and the SPI-WG blend.

	30% SPI	30% WG	15% SPI + 15% WG
Not sheared	Brittle, porous gel 	Short, thin fibers (multidirectional) 	Gel with short, thin fibers (multidirectional) 
Sheared	Firm dense gel	Long, thick fibers in a shear direction 	Gel with long, thick and thin fibers in a shear direction 

E.g. Shear cell technology (since 2000s)

Soy-Protein Isolate (SPI) and Wheat Gluten (WG) mixes in Grabowska et al. (2014, p. 745)

# Surrealing meat – achieving realness for a desired, plant-based meat



Couette cell technology – Birgitte Dekkers, WUR; Co-founder of Rival Foods



## 4. Is surrealized meat realer and better?

# surreality as hyper-reality

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Surrealed MEAT explicitly considers,  
Performs, and achieves  
meat realness ---  
on the plate

# surreality as better?

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If part of the design features are “better”.

- Cruelty-free?
- Sustainable?
- Affordable?

## 5. Conclusion

Scientific work to produce meat analogues is a process of surrealizing meat.

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Surrealed meat is in some ways realer, and it can be better, than conventional meat.

# Thank you!

Comments – QUESTIONS

[sophia.efstathiou@ntnu.no](mailto:sophia.efstathiou@ntnu.no)  
[kendig@msu.edu](mailto:kendig@msu.edu)

Twitter

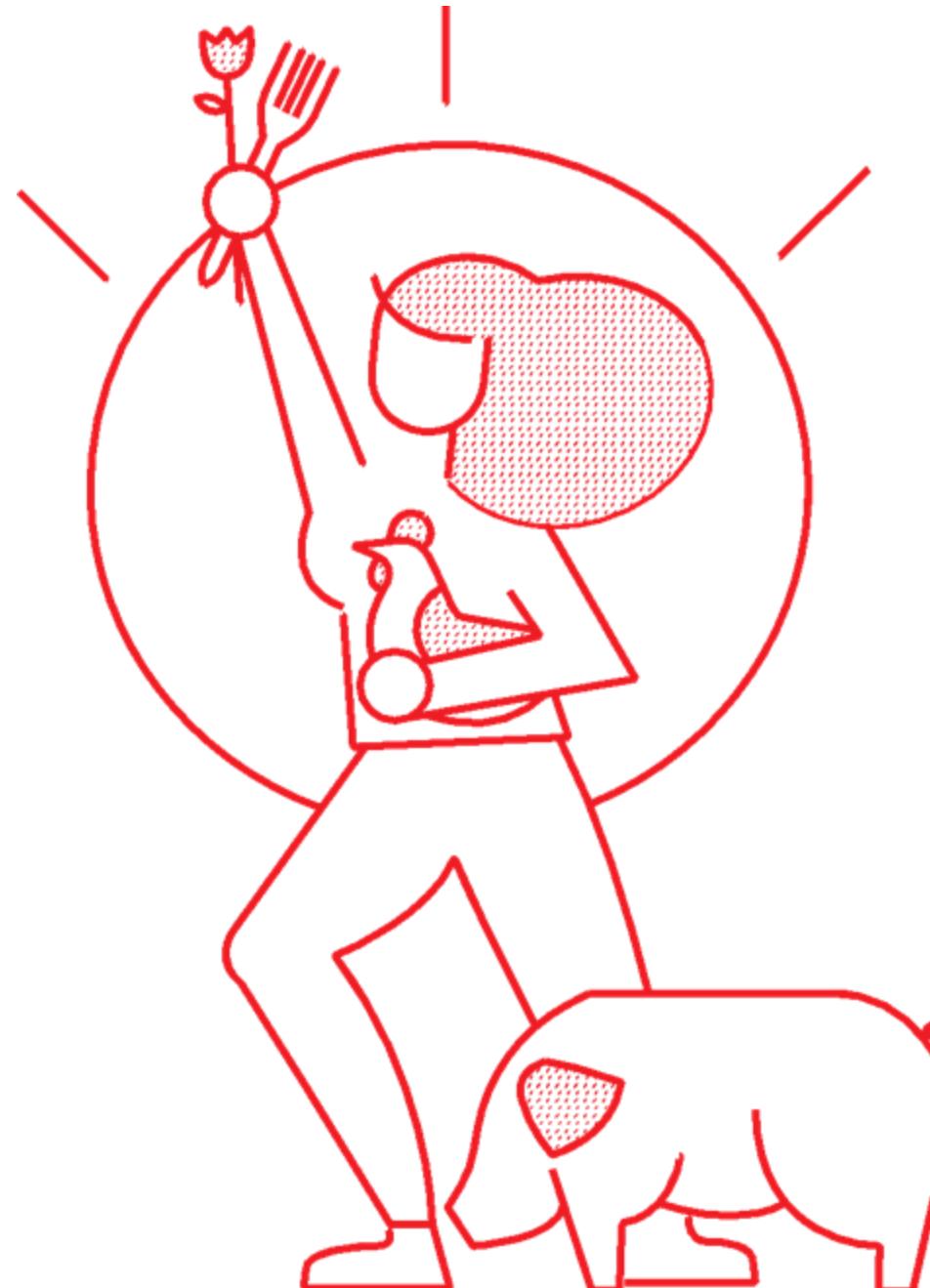
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## Selected references

Adams, C. J. (2015 [1990]). *The sexual politics of meat: A feminist-vegetarian critical theory*. Bloomsbury Publishing USA.

Adams, C. J. (2010). Why feminist-vegan now?. *Feminism and Psychology* 20(3): 302-317.

Adams, C. J., and Calarco, M. (2016). Derrida and The Sexual Politics of Meat. In Potts, A. (ed.) *Meat culture*. Brill, pp. 31-53.

Bugge, A. B., Alfnes, F. (2018). Kjøttfrie spisevaner–hva tenker forbrukerne?. Oppdragsrapport nr. 14-2018, Oslo: Forbruksforskningsinstituttet SIFO. Available at: <https://oda.oslomet.no/oda-xmlui/handle/20.500.12199/5355>

Butler, J. 1991. Imitation and Gender Insubordination. In Fuss, D. (ed.) *inside/out. Lesbian Theories, Gay Theories*. Routledge, London and New York, pp. 13-31.

Butler, J. (1999 [1990]). *Gender Trouble: feminism and the subversion of identity*. Routledge.

Haslanger, S. (2012). *Resisting reality: Social construction and social critique*. Oxford University Press.

He, J., Evans, N. M., Liu, H., and Shao, S. (2020). A review of research on plant-based meat alternatives: Driving forces, history, manufacturing, and consumer attitudes. *Comprehensive Reviews in Food Science and Food Safety* 19(5): 2639-2656.

Heller, M. (2020). RuPaul realness: the neoliberal resignification of ballroom discourse. *Social Semiotics* 30(1): 133-147.

Joy, M. (2020 [2010]). *Why we love dogs, eat pigs, and wear cows: An introduction to carnism*. Red Wheel.

Ouellette, L., and Hay, J. (2008). Makeover television, governmentality and the good citizen. *Continuum* 22(4): 471-484.

Potts, A., and Parry, J. (2010). Vegan sexuality: Challenging heteronormative masculinity through meat-free sex. *Feminism and Psychology* 20(1): 53-72.

Roe, E. J. (2006). Things becoming food and the embodied, material practices of an organic food consumer. *Sociologia Ruralis* 46(2): 104-121.

Sexton, A. E., Garnett, T., and Lorimer, J. (2022). Vegan food geographies and the rise of Big Veganism. *Progress in Human Geography* 03091325211051021.

Street, M. 2016. The Iconic Drag Queen Behind Frank Ocean's 'Endless. Vice, August 19. Available at: [https://www.vice.com/en\\_us/article/kwkwqy/the-lgbtq-icon-behindfrank-oceans-endless](https://www.vice.com/en_us/article/kwkwqy/the-lgbtq-icon-behindfrank-oceans-endless)

Strings, S., and Bui, L. T. (2014). 'She Is Not Acting, She Is' The conflict between gender and racial realness on RuPaul's Drag Race. *Feminist Media Studies* 14(5): 822-836.

Van Der Weele, C. and Driessen, C. (2019). How normal meat becomes stranger as cultured meat becomes more normal; ambivalence and ambiguity below the surface of behavior. *Frontiers in Sustainable Food Systems* 3: 69.

Varela, P., Arvisenet, G., Gonera, A., Myhrer, K. S., Fifi, V., and Valentin, D. (2022). Meat replacer? No thanks! The clash between naturalness and processing: An explorative study of the perception of plant-based foods. *Appetite* 169: 105793.

Volden, J. (2022). Can we (de)grow meat? Bringing alternative protein in dialogue with degrowth. *Tvergastein*: 16. Available at: <https://www.tvergastein.com>

Warde, A. (2016). *The practice of eating*. John Wiley and Sons.

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