

# The Sense of Sound



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# „Sound is undoubtedly the forgotten flavour sense“

- Most researchers, when they think about flavour, fail to give due consideration to the **sound that a food makes** when they bite into and chew it. However, ..., **what we hear while eating** plays an important role in our perception of the textural properties of food, not to mention our overall enjoyment of the multisensory experience of food and drink' (Spence, 2015).

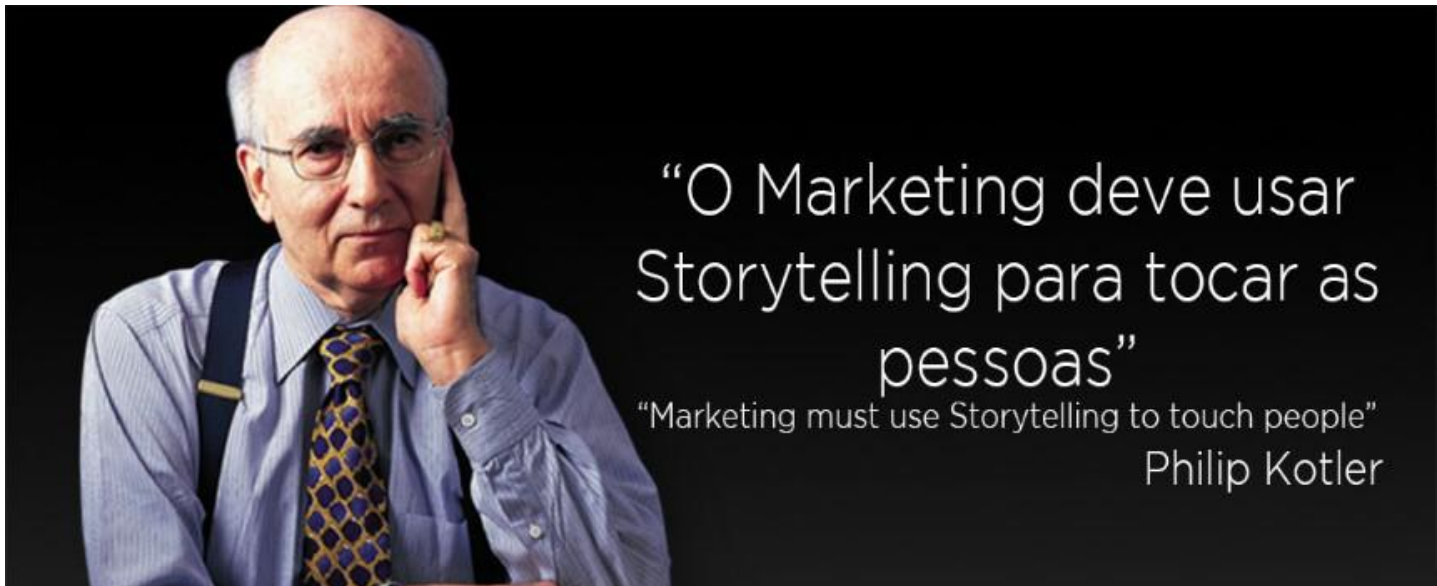
# The sound of the market place

- ‘Everybody sells intangibles in the marketplace, no matter what is produced in the factory’ (Levitt, 1981).
- In some cases, the atmosphere is the primary product’ (Kotler, 1973)



# Atmospherics

- „Atmospherics is the effort to design buying environments to produce specific emotional effects in the buyer that enhance his purchase probability“ (Philip Kotler, 1973)



# Studies about Music in the Store

- Slow paced music results in slower flow of customers. More time spent in the store = more money spent (38% +; Milliman, 1982)
- Is only true if music played in minor mode (Knofler et al., 2012)
- More expensive wine is bought when classical music is played (Areni and Kim, 1993)

# Music in store influences our shopping behavior.

150 scientific papers from 1966 to 2006

- Familiarity with music had a positive effect on customer and felt pleasure
- Familiar music with slower tempo and lower volume increases time and money spent
- Unfamiliar, disliked, loud and fast music shortens shopping time and reduces sales

(Garlin and Owen 2006)



# The Fat Duck Restaurant Experiment

Seafood tastes  
significantly better and  
not salty anymore while  
listening to the sounds of  
the ocean compared to  
other soundtracks



# Synaesthetic Matching of Sound

- Low/high pitched sounds enhanced the bitterness/sweetness in a bittersweet toffee
- British Airways  
Soundbite Tracks for long distance flights to improve the taste of the meal





# The Sound of Chocolate

<http://www.thesoundofchocolate.be/>



In Brussels local chocolatiers, scientists and musicians developed new pralines with music specifically designed to enhance the tasting experience

# Human Perception is biased

One product attributes 'shines' over all the other attributes and colours them in a specific meaning.

Stimulation of one sensory pathway causes an involuntary experience in a second pathway.

Related Marketing theories:

- Halo Effect
- Sensation transference
- Quality Cues



# Multisensory Flavor Perception

Sound influences the perception of taste

- Identical beers got different ratings of sweetness, bitterness, sourness and alcohol content
- Used for „sonic seasoning“: Coffee is better rated when we hear the coffee machine before tasting the coffee.



# Sound design to improve the eating experience !

- Bahlsen, the cookie company, developed different sounds for different target groups
- Nestlé uses a Crustimeter
- When Unilever changed the cracking sound of Magnum ice, consumers complained!



# Summary

- We almost never experience taste in isolation of other senses.
- Taste is the result of a „multisensory flavour perception“ (80% of our taste perception stems from olfactory receptors)
- Sonic seasoning is a chance for new product development to offer better eating experiences without adding artificial ingredients

Thank you for your attention !

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