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How to Point with Language: English Source-Based Language to Describe Taste Qualities

ABSTRACT

Western languages notoriously lack specific, abstract vocabulary to describe sensory perception. Despite the paucity of specific lexical items, descriptions of sensory characteristics of food abound in English. One of the most common strategies is source-based language (e.g., *creamy*), which allows speakers to evaluate and communicate a current sensory experience with respect to a prototypical source of the sensation. The aim of this paper is to review the different morpho-syntactic patterns used to convey source-based information to describe flavour, and to provide a taxonomy of the constructions involved. The three types of source-based language discussed are organised along a cline from more analytical (i.e., X tastes like Y), to more synthetic (i.e., adjectival suffixes), with a medial stage in which the source of the sensation is morphologically free, but syntactically embedded in constructions following the pattern N1 of N2 (e.g., *a splash of chilli*). Previous literature has accounted for this phenomenon either as motivated by conceptual metonymy, or as a case of “pointing structures”. I argue that the two different theoretical accounts need not be in stark opposition, rather they both contribute to our understanding of the figurative usage of concrete items in language. Data were retrieved online from a collection of gin Tasting Notes, created by expert tasters to evaluate the flavour profile of the liquor.

Keywords: source-based language, taste description, metonymy, indexicality, pointing

1. Introduction

Investigations into the language of the senses have been gaining momentum recently. Although Cognitive Linguistics has always been concerned with the complex relationship between bodily experiences, the mind and language (Sweetser, 1990), the most frequently represented sense in research has been colour vision (Berlin & Kay, 1969; Sandford, 2017, 2018). There have been notable exceptions, such as Ibarretxe-Antuñano (1996, 1997) who investigates the sense of smell in Basque; Evans and Wilkins (1998) concentrate on the sense of hearing in Australian aboriginal cultures. More recently, scholars have focused on the whole array of perceptual modalities: for instance, Trojszczak (2019) deals with the sense of touch, Julich (2019) examines the language of music, Speed and Majid (2019) explore the “neglected senses” of touch, smell, and taste. Bagli (2021) authored a monograph on the sense of taste in English, and Toratani (2022) edited a volume on the Language

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of Food in Japanese. Winter (2019), labels this renovated interest in the relationship between language and the senses as *Sensory linguistics* in the homonymous book, a line of investigation nestled within Cognitive Linguistics. Winter (2019) adopts usage-based methodologies, quantifiable psycholinguistic measures elicited through psychological experiments, aggregated ratings and sensory norms (Lynott & Connell, 2009) to offer an accurate representation of the human sensorium.

Sensory linguistic research has shown that Western languages tend to lack abstract, entrenched, lexicalised items to describe the chemical senses, i.e., *taste* and *smell* (Ankerstein & Pereira, 2013; Holz, 2007: p. 186), thus leading to some scholars suggesting that odours and tastes are inexpressible in language. Contrary to most Indo-European languages, non-Western languages exhibit a different behaviour, as epitomised by the lexicon of smell in the so called “smell cultures” (Burenhult & Majid, 2011; Classen, 1993). For instance, Jahai speakers in the Malay peninsula have twelve abstract basic smell terms at their disposal, often derived from a prototypical source, which however may be extended also to other sensations. Under experimental conditions, Jahai speakers depart from source-based language and provide abstract smell descriptions (Majid et al., 2018). The existence of different terms in other languages to describe the lowest sensory modalities suggests that odours and flavours indeed are expressible in Language, as long as the language spoken by a community contains these terms (Majid & Burenhult, 2014). Thus, the development of abstract concepts and categories to discuss perception is linked to cultural preoccupations, and the lack of lexicalised items in Western languages to discuss lower perceptual modalities does not imply that odours or tastes are inexpressible in language (Levinson & Majid, 2014).

Western societies have recently started to reconsider the role of the lower senses among their cultural preoccupations: informal social gatherings, TV shows, blogs, and official contests in which the sensory qualities of various food and drinks are appreciated and described abound. The food industry has a dedicated stage during the production process in which expert tasters assess and evaluate the sensory attributes of food, with specific terminologies and jargons (e.g., Drake & Civille, 2002; O’Mahony et al., 1990). In linguistics, wine is the product that has received most attention, and Olive Oil follows (López Arrojo & Sanz Valdivieso, 2019). Lehrer scientifically approached the study of the language of wine in *Talking about wine* (1975) and *Wine and conversation* (2009). Lehrer’s main interests lied in semantics and an exploration of the semantic field of the adjectives that describe the sensory qualities of wine. Recent research on winespeak and Tasting Notes (TNs)¹ has focused on textual and discourse aspects (e.g., Morrot et al., 2001) and

¹ Tasting Notes are the result of the professional activity of evaluating a product through taste. They are brief texts (20–100 words on average), see Caballero et al. (2019) for a full assessment.

on the figurative mechanisms involved (Caballero, 2007; Paradis, 2010; Paradis & Hommerberg, 2016).

The language used in these specific contexts is revealing of common strategies to overcome the dearth of specific lexical items. Besides frequent reliance on conceptual metaphors, the most common of these strategies is source-based language. The present paper aims at surveying the different morphological and syntactic configurations through which source-based language is deployed in English and shows how its realisations move along a cline from more analytical to more synthetic. Furthermore, it aims at identifying and unifying in a single theoretical model the various linguistic manifestations of source-based language, retrieved through a small corpus of tasting notes of gin.

2. Source-based language

Source-based language is a common strategy in the description of sensory experience. It involves the evaluation of a current sensation by referring to a concrete source of a similar (or indeed the same) sensation; for instance, *it tastes like lemon*. Although it is often discussed in relation to the lexicon of taste and smell, it is common also in the description of other sensory modalities. Plümacher (2007) discusses and identifies two main ways in which the source of a sensation motivates the name of specific colour hues, where a frequent strategy is “to name a shade by pointing to the prototypical colour of a well-known object” (p. 66), evident in colour names such as *olive*, *salmon*, or *peach*. Another common strategy identified is to name a colour by referring to the pigments or dyes that produce the colour (see also Gage, 2001; Schweppe, 1993). Examples of this strategy include colour names such as Eng. *purple* from Lat. *purpura*, a marine mollusc used to dye clothes; or Eng. *cochineal*, an insect which is used to produce bright carmine dyes. Not only are specific hues cases of source-based language, but even most English Basic Colour Terms ultimately derive from a prototypical source: the name *orange* developed from Sp. *naranja*, and the name *pink* derives from the prototypical colour of carnation flowers (Sandford, 2021, p. 223). Furthermore, despite not being evident in contemporary English, even the name *yellow* is connected to an Indo-European stem **ghel-* or **ghól* that developed in words such as *gall* or *gold* (Wyler, 2007, p. 118). This phenomenon is particularly evident in commercial names for hues, which often encapsulate real entities from the real world, such as landscape, trees, and minerals (p. 117).

In the discourse of food evaluation, the array of morphological and syntactic strategies deployed to encode sources of a sensation is variegated. A source of a given sensation may be encoded analytically by using a perception verb complemented by a PP headed by *like*, as in *It tastes/smells like lemon*, thus establishing an evaluative comparison between a current sensation and the memory of a similar one. In specific contexts of usage, such as Tasting Notes, the

predicate may even be omitted, and the source of the sensation is simply listed. Alternatively, the source may be encoded in NPs headed by a noun complemented by a PP specifying the source, following the binomial construction N1 *of* N2 e.g., *notes of lemon*. In this type of constructions, N1s typically function as syntactic heads, while N2s specify the semantic content of the binomial (Benigni & Latos, forthcoming). N1s may convey information about its quantity (e.g., *lots of lemon*), or specify whether the sensation is olfactory (e.g., *a whiff of lemon*). Finally, the third linguistic strategy to encode sources of a sensation in the lexicon is through morphological derivation. The most frequent case is through the suffix *-y* attached to the source, i.e., the morphological root: e.g., *It tastes/smells lemony*.

Source-based language is especially common in experts' speech (Crojimits & Majid, 2016; Drake & Civile, 2002), as it allows for higher accuracy. There are however some drawbacks that may arise from its usage: while it is efficient among experts, it may be perceived as eccentric and obscure to non-experts who may not have had experience of the specific source. For instance, describing the taste of a gin as having "notes of bamboo sprouts" does not provide any information to a taster who has never tasted bamboo. Source-based language needs to be conventionalized among a community of speakers to be communicative.

3. Theoretical assessment

In Cognitive Semantics, Source-based language has been accounted for as cases of conceptual metonymy, in which a concrete object (the source) functions as the vehicle providing access to a specific aspect of the experience it produces (Bagli, 2021, p. 62–63; Cacciari, 2008, p. 426; Winter, 2019, p. 24). The expression of a specific object evokes an ICM (Idealised Cognitive Model) (Lakoff, 1987; see also Evans, 2007, p. 104), which contains perceptual information associated to the object. Thus, communication is successful only if the interpreter of source-based language can select the relevant information within the ICM. The metonymy may be formalised as PRODUCER STANDS FOR PRODUCT, or WHOLE (object) STANDS FOR PART (sensation). The relevant part of the ICM is selected contextually. In the case of analytical source-based descriptions, for instance, the sensation we are referring to is selected by the verb: e.g., *This looks/ tastes/ smells like lemon*. The choice of the verbal component restricts the interpretation of the utterance, and helps the interlocutor select the relevant PART of the experience ICM produced by the WHOLE lexical item "lemon".

Winter (2019, pp. 23–25) proposes a different account, discussing the phenomenon of source-based language as a case of indexicality, one of the fundamental semiotic strategies described by Pierce (1903). According to Pierce, signs may be classified in three major groups: *symbols*, *icons*, and *indices*. A symbol is an association between a sign and its meaning, which is shared and accepted among a community of speakers. For instance, most of the words of a language are symbols. Icons instead are signs that physically resemble their

meaning. For instance, the representation of a bin on the desktop of our computers *resembles* an actual bin, and it is used to dispose of unwanted material in the machine. Lastly, *indices* are signs that present a physical or causal connection with the entity they signify. For instance, dark heavy clouds in the sky are an index for a storm approaching. Clark (1996) elaborates on Pierce's division and concludes that symbols *describe* an object *as* a member of a given category; icons *depict*, and indices *identify*.

One of the most common and widespread cases of an indexical sign deployed in animal communication is pointing. It is one of the first forms of pre-verbal communications that infants develop. Around their first year of age, human babies start pointing at objects to convey different intentions, mainly as imperatives (children point at the object they want, or that is involved in an action they want to be performed by a caregiver), or as declaratives (children point to convey and direct attention towards something that has elicited an emotional state) (Tomasello, 2008, pp. 111–116). Considering that also chimpanzees have been observed producing pointing gestures, almost certainly not by imitation of humans, Tomasello (2008) argues that

the most plausible hypothesis at the moment is that infants do not acquire their pointing gesture by imitating others; rather it comes naturally to them in some way – perhaps as a non-social orienting action that becomes socialized in interaction with others. (p. 111)

Source-based language may be successfully analysed as the linguistic counterpart of a pointing gesture. The source of a sensation is *indicated* (identified, in Clark's terms) through its name, and it is encapsulated in a specific construction that directs the speakers' attention to that specific object. Therefore, source-based expressions are an instantiation of *indexicality*, in which a speaker uses a linguistic construction to *point at* the source of a sensation to describe a current perceptual sensation under evaluation.

The two different theoretical accounts are not in opposition. Metonymic relations may be related to indices (Littlemore, 2016, p. 120), to the extent that indexicality may be regarded as one of the central elements of metonymic relations. Although “not all types of metonymy appear to be based on indexical relations and not all indexical relations give rise to metonymy” (Radden, 2018, p. 173), the two mechanisms are closely related, and source-based language represents one of such areas in which the two cooperate.

4. Instances of source-based language in gustatory descriptions

Source-based language may be characterised as a conceptual metonymy based on an indexical relation. What are the syntactic and morphological structures that may be deployed in English to realise this type of relation?

To answer this question, I will analyse linguistic data emerging from an analysis of Tasting Notes of gin. This liquor was chosen because its distilling process requires the infusion of specific aromas, called *botanicals*, which impart specific flavour profiles to the final product. Expert tasters therefore heavily resort on source-based language to identify the different aspects of the sensory experience. The data I analysed were collected online from the International Wine and Spirit Competition (IWSC) website, a British association that organizes a yearly international competition for distillers and wine-makers world-wide. Each product is assessed by a group of professional tasters, and subsequently rated by assigning different points along a scale. The TNs of each product are available online on the website of the competition and may be downloaded². I compiled a corpus of TNs describing gins that entered the competition in 2021. I limited the search to spirits distilled in England and selected only those which were not mixed with tonic water. This yielded to a corpus of 5000 words, which was run on SketchEngine to find relevant patterns and to elicit wordlists. The different strategies are categorised according to their morpho-syntactic patterns.

4.1 Analytical construction

The most basic pointing strategy is the analytical construction, in which pointing is achieved through direct mentioning of the source, and the interpretation of the meaning relies on textual context. The prototypical construction in this category is “Subj tastes/ smells like source”, yet it is not retrieved in the corpus under investigation³. I argue that this is related to the type of texts that make up the corpus: in the context of a Tasting Note, it would be redundant to reiterate that the substance under evaluation “tastes like” or “smells like” something, as the purpose of the textual genre is that of describing a flavour profile. The sources instead are simply listed, as in (1):

(1)

Pink grapefruit, citrus and juniper combine with subtle **star anise** and **pepper** to finish.

In (1) the sources are identified without explicitly stating that the relevant aspect of experience evoked is their *flavour*. The metonymic selection of the relevant part of the ICM is either operated by the larger context of textual genre, or it is triggered by specific terminology of the tasting event, as in (2):

² Retrieved April 29, 2022, from <https://iwsc.net>.

³ A cursory search in *The Corpus of Contemporary American English* (COCA) (see Davies, 2008) for the collocation “tastes like” yields 1k results.

(2)

Ripening citrus zest to the **nose** and juniper and ginseng identifiable on the **palate**. A slightly dry, spiced finish.

In (2), the different stages of the development of taste are indexed with reference to the relevant part of the body involved in the process: the **nose** refers to the preliminary smelling phase, while the **palate** refers to the tasting stage (Caballero et al, 2019). In both (1) and (2), the sources of the sensation are expressed analytically, by simply stating what a current sensation is reminiscent of.

4.2 Light Nouns

The sources of specific perception are often encoded in Noun Phrases where Light Nouns appear. In previous literature, binomial constructions of the type N1 of N2 have been analysed as classifiers (Taylor, 2002; Xiao, 2008, as measure terms (Croft, 1994), as quantifiers (Aikhenvald, 2000) or measure nouns (Brems, 2003, 2010). Following Simone and Masini (2014, p. 52; see also Simone & Masini, 2009), I refer to this pattern as “Light Nouns construction”, i.e., a construction headed by nouns whose referentiality weakens under special syntactic conditions and which are semantically bleached to take on (some level of) grammatical meaning. While the class of Light Nouns contain different subclasses, such as taxonomic nouns (e.g., *type*) and aspectual operators (e.g., *stroke*, as in *stroke of luck*: Mastrofini, 2022; see also Pepper, 2022), the nouns retrieved in source-based language are mainly quantifiers and classifiers, which are considered by Simone and Masini (2014, pp. 58–59) as a unified class.

The list of Light Nouns retrieved in the corpus is illustrated in Table 1. The most common construction in which they appear is N1 of N2, in which N1 is the Light Noun and N2 encodes the source of the sensation (e.g., *a touch of sage*). Other nominal constructions include N2 N1 where the source of the sensation operates as modifier of the Light Noun (e.g., *juniper hints*). Lastly, the source may be encoded by an adjective in the pattern Adj N1 (e.g., *floral touch*, *woody tones*): this strategy is discussed more in depth in the following paragraph. However, these results are listed here to allow discussion of the nominal part of the NPs.

Table 1 reports the Light Nouns retrieved in the corpus; the first column lists the lexical item; the second column reports its relevant definition in the OED; and the third column provides examples of usage. The Light Nouns frequently describe a small quantity of the source of the sensation, as in, e.g., *a smidge of orange zest*. In other cases, they may refer to more considerable quantities, as in, e.g., *an abundance of juniper*. The usage of most nouns as Light Nouns may be accounted for through a metaphorical shift: e.g., *hit*, *drops*, *splash*, *pinch* (see Benigni & Latos, forthcoming, for a metaphorical analysis). Notably, some of these nouns derive from other perceptual modalities: e.g., *touch*, *tone*, *tingle*. There are also

Table 1. Light Nouns in source-based language

lexical item	definition	example
<i>abundance</i>	An overflowing quantity or amount (of something); a large quantity; plenty. (OED 1)	an <i>abundance</i> of juniper.
<i>drop</i>	Such a quantity as would fall in, or form, a single drop; the smallest appreciable quantity. (OED 5a)	orange and pear <i>drops</i> .
<i>hint</i>	A slight indication intended to be caught by the intelligent (OED 2a)	a <i>hint</i> of strawberry aroma; <i>hints</i> of citrus; <i>Hints</i> of soft liquorice; juniper <i>hints</i> .
<i>hit</i>	A blow given to something aimed at; a stroke (at cricket, billiards, etc.); the collision or impact of one body with another. (OED 1a)	big <i>hit</i> of cardamom.
<i>lot</i>	A number of things or animals of the same kind, or associated in some way; a quantity or amount of something; a set, a group; spec. a batch or consignment of goods, livestock, etc. Chiefly with of. (OED IV 15)	<i>lots</i> of fresh mint.
<i>note</i>	A component of the aroma or flavour of a food or drink, esp. of a wine. (OED 10c)	<i>notes</i> of coriander; creamy <i>notes</i> ; delicate citrus <i>notes</i>
<i>pinch</i>	An amount (chiefly of a powdered substance, esp. snuff) that may be taken up between a finger and thumb. Hence in extended use: a very small quantity. (OED III. 12)	a <i>pinch</i> of spice.
<i>smattering</i>	A small amount or number. (OED 1c)	<i>smatterings</i> of florality.
<i>smidge</i>	Chiefly with a and followed by of. A tiny amount of something; a little bit; a trace. (OED 1)	a <i>smidge</i> of orange zest.
<i>splash</i>	A quantity of some fluid or semi-liquid substance dashed or dropped upon a surface. (OED 1a)	a <i>splash</i> of chilli warmth.
<i>streak</i>	A thin irregular line of a different colour or substance from that of the material or surface of which it forms a part. (OED 2a)	a lovely <i>streak</i> of chamomile.
<i>tingle</i>	A tingling sensation in a part of the body, or the tingling action or effect of cold, etc.; frequently figurative or hyperbolic, with reference to mental or emotional pain, or (now esp.) excitement or stimulation. (OED B2)	a wood spice <i>tingle</i> .
<i>tone</i>	A musical or vocal sound considered with reference to its quality, as acute or grave, sweet or harsh, loud or soft, clear or dull. (OED 1)	woody <i>tones</i> on the palate.
<i>touch</i>	A mark made by touching; a small quantity of any substance deposited by, or as if by, a light or brief touch; a dab. (OED 10a)	a <i>touch</i> of sage and pine; Floral <i>touch</i>

<i>whack</i>	A vigorous stroke with a stick or the like; a heavy resounding blow; also the sound of this. (OED 1a)	Powerful <i>whack</i> of seaside juniper.
<i>whiff</i>	A slight puff or gust of wind, a breath. (OED 1a)	a <i>whiff</i> of juniper.
<i>whisp</i>	A slight blast or puff (of wind) or sprinkle (of rain). (OED 1a)	a <i>whisp</i> of lavender.

two Light Nouns that originate in odour vocabulary, i.e., *whiff* and *whisp*, thus referring to the aroma of the gin. The nominal constructions with Light Nouns often sponsor a complex figurative understanding, in which the syntactic head of the construction N1 specifies a quantity of a source expressed in N2, which requires a metonymical understanding to be decoded, following the metonymy WHOLE (of the source) FOR PART (of its physical properties).

The encoding of a perceptual source through Light Nouns is a “hybrid” construction on the scale from analytical to synthetic: although the source appears freely, it is syntactically embedded in a PP complementing the Light Noun. In this type of pointing construction, interpretation is achieved through the syntagmatic context in which the source appears.

4.3 Derivation

The last category of pointing strategies is represented by morphological derivation. The source of the sensation is expressed as the root of a denominal adjective. Pointing is achieved through morphological devices: the most common suffix is *-y*. The production of new lexical items through this process was already noted by Lehrer (2009, pp. 19–20), who finds it as the most productive mechanism of lexical expansion in the description of wine. Typically, this suffix is attached to concrete objects with the meaning of “having” or “resembling”, and it is often difficult to disentangle the two meanings in source-based language (Bagli, 2021, p. 64; Lehrer, 2009, p. 19).

This strategy paves the way to lexicalisation, as evidenced from English Basic Taste Terms *salty* and *savoury*, morphologically derived from a source (Bagli, 2021). Other terms, such as *fruity* and *juicy*, despite not qualifying as Basic Taste Terms, were produced by native speakers in a free-listing task (Bagli, 2021, pp. 51–67), thus suggesting that they are not ad-hoc constructions, rather they are stable and conventional adjectives in the description of taste.

Notably, the analysis of the corpus has evidenced other morphological devices that may be used to encode the source of a specific sensation in English. These are listed in Table 2:

Table 2. List of morphological patterns to encode sources

device	examples
-y	<i>herby, woody, piney, oaky, leafy, grassy, and peppery</i>
-al	<i>floral, herbal, vegetal</i>
-ic	<i>citric</i>
-(e)ous	<i>herbaceous</i>
-like	<i>cactus-like</i>
-led	<i>citrus-led</i>

The suffixes listed in Table 2 are morphological devices through which speakers of English may point at a specific source of a sensation, as specified by their definitions in the OED.

The suffix *-al* creates adjectives having the meaning “of or relating to that which is denoted by the first element” (OED, *-al*). The suffix *-ic* ultimately derives from Greek, where it had among other meanings that of “of the nature of”, “of” (OED, *-ic* suffix). Likewise, the suffix *-(e)ous* is used in English to form adjectives “with the sense ‘abounding in, full of, characterized by, of the nature of (what is denoted by the first element of the compound)’” (OED, *-ous*), thus instantiating again a case of source-based language. The suffix *-like* is also used in English to create adjectives (and adverbs) from nouns, having the meaning of “similar to or of the nature of –” (OED *-like* suffix). Finally, the suffix *-led* is used to create adjectives as in (3):

(3)

Citrus-led nose continuing across the palate with a firm juniper core.

The lexical item *citrus-led* in (3) may be paraphrased as *The nose of the gin is led by citrus*, thus instantiating a case of metaphorically driven word-formation, in which the aroma of the product is conceptualised as motion, and the source of the sensation is the propelling force throughout the event of sensory appreciation.

Morphological derivation is the most synthetic of the three constructions, as the source undergoes suffixation, therefore triggering the indexical interpretation. Despite being comparatively more straightforward, the correct interpretation still relies on context: describing something as e.g., *woody* may describe qualities experienced through touch (i.e., solidity), through vision (i.e., colour or visual texture), or through taste.

5. Discussion

The results reviewed in this paper illustrate three common strategies through which a specific source of a sensation may be encoded in English. These are the analytical construction, the Light Nouns construction, and the synthetic construction. The same source may be pointed at along the three, as in, e.g., *clear*

pine flavours; soft *pine* notes; *piney* juniper and *angelica* aromas, or it may be restricted to lexicalised forms, such as *floral* or *fruity*. In all cases, the lexical items expressing the concrete source of the sensation establish an indexical relationship with the experience they refer to. Language points at a specific source, which in turn evokes an Idealised Cognitive Model containing perceptual information associated to the source. In the case of *pine*, for instance, it could be the colour, the shape, the feeling on the skin, or its flavour. The linguistic and discursive context restricts the possibilities of interpretation and activates a conceptual metonymy that regulates the decoding of the message. This is particularly evident in the case of the analytical construction, in which the sources of the experience are simply listed in the description of the flavour profile. A certain degree of contextual selection is needed also in more synthetic constructions, as the specific aspect of experience that is pointed at through derivation may not be univocal. Therefore, it needs to be selected among a range of different characteristics that are present in the ICM. The medial structure instead seems to be more straightforward: the Light Nouns heading the NPs operate as a semantic specifier of the relevant aspect of the source encoded by the N2, thus evoking the correct construal for the interpretation of the evaluation.

The construction of the Idealised Cognitive Model relies on encyclopaedic knowledge: it is vital that the speakers share background information. Using an obscure source of the sensation equals pointing to something out of the immediate context of the speaker. To overcome this problem, professional tasters are trained to agree on specific perceptual qualities, therefore creating a shared background knowledge (O'Mahony, 1990). The same is not necessarily true for the naïve taster or liquor-enthusiast, who may feel puzzled when confronted with specific and exotic sources. The sources identified in this paper are nouns that mainly (but not necessarily) refer to edible items. Bagli (2021) also found that verbs (e.g., *crunchy* from *to crunch*) and interjections (e.g., *yummy* from *yum!*) may be used as potential sources.

Overall, the three strategies emerging from the corpus under-analysis may be organised in a uniform model by considering indexicality and metonymy as driving principles underlying these expressions. The most common example of indexicality in primate communication is the pointing gesture. This strategy arises in pre-verbal stages of language acquisition in *Homo sapiens*, and it has been observed also in close-related species, thus making it one of the most fundamental tools to direct joint attention and establish communication among individuals. Source-based language may therefore be seen as a case of linguistically pointing at a prototypical source of an experienced sensation. This is achieved through the linguistic enunciation of the source. Crucially, linguistically pointing alone is not sufficient in conveying the necessary information, as it does not provide enough clues on *which* aspect of the source the speaker is referring to. The selection of the relevant aspect of experience

is operated through metonymy, which is triggered by contextual clues available in the utterance under analysis. These clues may be syntactic, e.g., perceptual verbs or Light Nouns, or they may be retrieved from textual genre.

English does not display enough abstract lexical items to describe univocally each of the sensations arising from the sensorial profile of gin. In other words, the abstract terms in the lexicon of taste are not variegated enough to accommodate for a wide range of gustatory sensations. Indexicality and conceptual metonymy are cognitive strategies that enable our linguistic systems to be economical and avoid unnecessary proliferation of lexical items. Thus, reliance on the conceptual mechanism of metonymy to describe such specific aspects of experience further demonstrates that figurative language and thought are deeply engrained in our minds and in the linguistic system. They are so fundamental that they emerge even in structuring the lexicon of bodily perception, one of the most concrete areas of human experience.

6. Conclusion

Although English displays a limited range of abstract terms to describe gustatory perception (especially if compared to other non-western languages), speakers rely on concrete-based expressions to conceptualise a specific sensation. Cultural preoccupations foster the development of new social scenarios mediated by language, which adapts to fulfil new communicative needs, such as sensory evaluation of food. Source-based language is one of the most common strategies to describe a perceptual experience, and it rests on shared encyclopaedic knowledge among individuals. On one hand, the reference to a concrete source allows experts to be more accurate. On the other hand, it harbours referential opacity if perceptual information of the source is not shared among speakers.

The present paper has offered an overview of the different strategies deployed in English to point at a specific source of sensation through language. Although their morpho-syntactic structure differs, three main strategies have been identified and positioned on a scale from more analytical to more synthetic. These linguistic strategies may be successfully described by relying on a model that combines indexical relationships and metonymy, and it is analysed here in analogy with pointing gestures, one of the most basic examples of indexicality in human communication.

Despite specifically dealing with taste and smell, the phenomena described in this paper underlie the linguistic realisation of sensory descriptions also in different modalities. Source-based language is frequently retrieved in the description of colours and sounds as well, and it represents a common strategy on which speakers rely to convey specific information. Some of these items may reach a more stable and conventional status in the lexicon, and therefore become lexicalised. The synthetic strategy seems to be the one that most frequently favours lexicalisation

of adjectives in gustatory lexicon (e.g., *salty*, *spicy*). Future investigations should assess whether this is verified also in other sensory modalities. For instance, the lexicon of colour often uses the bare source of the sensation (e.g., *salmon* is a shade of pink, which is not frequently described as **salmony*), thus suggesting that colours prefer a different lexicalisation strategy.

Colour and visual perception have a large vocabulary at their disposal in Western languages, and this grants for higher levels of abstraction in their lexicon. In this perspective, source-based language is often accounted for as a suppletive strategy for lack of abstract terms, and it is most discussed in relation to sensory modalities that are particularly difficult to encode, such as taste and smell. Nonetheless, as other scholars have argued, source-based language is pervasive in any modality and in any evaluative description of perception. Further research should investigate if the strategies described in this paper are also common in other modalities, or if some of them are specific to certain perceptual dimensions. For instance, how are sources encoded in the description of sounds? What is the array of source-based strategies adopted in the description of colours? While the conceptual mechanisms underlying source-based language is not expected to vary, their morpho-syntactic realisation may be constrained by external factors. Moreover, future research should also assess the range of sources and their distribution across the senses. Unsurprisingly, most sources that emerge from this analysis are nouns that describe edible items (there are counterexamples: e.g., *pine* or *wood* are not typically consumed as food). Other modalities may not so heavily rely on nouns to be described: for instance, sounds may more heavily rely on verbs than nouns, considering that they are most frequently conveyed as verbs (Winter & Strik Lievers, 2018).

Another fruitful area of research should investigate whether the model of source-based language identified in this paper may also be applied to other areas of the lexicon, for example scientific terminology. The need to describe specific objects in minute details, such as the margins of a leaf, or their disposition on a branch, may lead to the deployment of the same conceptual strategies, but in different morpho-syntactic structures.

Overall, the research presented in this paper shows how language and communication overcome the dearth of abstract lexical items by relying on indexicality and metonymy to convey meaning and describe specific sensations. At the same time, it also shows the extent to which figurative mechanisms are engrained in our conceptualisation of reality. Bodily sensations rank among the most concrete experiences in life, and yet humans often rely on figurative mechanisms to communicate them. This is exemplified in the case of pointing with language, in which metonymy severs the relevant aspect of the source from the whole Gestalt of experience being pointed at, thus enabling communication and understanding.

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