

SUBMITTED ARTICLE

How we talk about smells

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Smells are often said to be ineffable, and linguistic research shows that languages like English lack a dedicated olfactory lexicon. Starting from this evidence, I propose an account of how we talk about smells in English. Our reports about the way things smell are comparative: When we say that something smells burnt or like roses, we characterise the thing's smell by noting its similarity to the characteristic smells of certain odorous things (burnt things, roses). The account explains both the strengths and limitations of our smell discourse, and has implications for philosophical discussions of the relation between language and appearances.

KEYWORDS

smell, appearance reports, similarity, comparatives, perceptual appearances, perception

1 | INTRODUCTION

A recurring claim since antiquity is that smells are ineffable or difficult to put into words, and cannot be precisely classified (e.g., Baltussen, 2015). This is due, at least in part, to a lack of appropriate linguistic resources. Smells, it is observed, can only be “compared through similarity with another sense ... for example, of taste; to compare, e.g., that which smells sour, sweet, rotten” (Kant, 2006/1798, p. 51). Alternatively, “we simply refer to the material they originate from. We speak of odours as we used to speak of colours, that is by comparing them with well-known objects” (Zwaardemaker, 1925, p. 178 as cited in Barkat-Defradas & Motte-Florac, 2016, p. 2; see also Sperber, 1975, pp. 115–116).

Contemporary research in linguistics resonates with these quotes. We find wide agreement that, at least as far as English and other Western languages go, there is no dedicated lexicon

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for smells (e.g., Dubois & Rouby, 2002; Dufour & Barkat-Defradas, 2016; Kleiber & Vuillaume, 2016; Levinson & Majid, 2014; Majid et al., 2018) and that “smells are not particularly codable, or expressible, in language” (Majid & Burenhult, 2014, p. 267; see also Levinson & Majid, 2014; Majid, 2021).¹ The first claim is that we lack predicates that exclusively or at least primarily designate smells or olfactory properties. Minimally, our set of olfactory predicates is very limited and consists mostly of terms such as “fragrant”, “scented”, “smelly” or “stinky”, which signify the generic property of having a smell, often with an evaluative component. By contrast, we have many predicates that exclusively or at least primarily denote specific colour properties, are psychologically salient in our linguistic community, and are widely and uniformly used—for instance “red”, “blue”, and “yellow”.

The comparison with colour also illustrates the related thesis that smells have low codability in English. Majid and Burenhult (2014) propose three criteria for the codability of a domain: length of the utterances, degree of intersubjective agreement, and type of description, namely whether the description is “abstract, source-based or evaluative” (see also Levinson & Majid, 2014). When asked to describe the colour of an object, English speakers’ utterances are brief, in agreement with those of other speakers, and primarily feature abstract terms. “Red”, for instance, is an abstract term: It denotes specifically a colour property and applies independently of what sort of object has that property (a tomato, a car and a bird may all be red). This is not so for the smell domain, where English speakers often use long, sometimes idiosyncratic descriptions, leading to low intersubjective uniformity. Speakers’ descriptions here are predominantly source-based (“like a banana”, “Big Red gum”, “chocolate”), sometimes evaluative (“nice”, “disgusting”) and only rarely abstract (the examples given by Majid and Burenhult are “musty” and “sweet”; see also Poulton, 2020).² The domain of smell is thus poorly codable in English, in contrast with the domain of colour.³

This research highlights the limitations of smell language in English, but it also motivates a positive thesis as to how we go about overcoming those limitations. We lack predicates for olfactory properties that could be used to describe smells directly. A typical strategy we adopt, when we do not use evaluative predicates, is to use predicates for sources of smells and their non-olfactory properties, such as “chocolate”, “ripe” or “sour”. These predicates do not directly apply to smells—smells are not themselves chocolate, ripe or sour—but they can be used to describe smells by comparison with things that are chocolate, ripe or sour. Taking this idea as a starting point, this paper outlines an account of how we characterise smells in English. We can understand how predicates that do not specifically denote smells or olfactory properties can be used to describe smells by considering them in the context of reports of olfactory appearance (*smell reports*), such as “the room smells like chocolate”, “the peaches smell ripe”, “spoiled milk has a sour smell”. My main thesis is that all these reports are implicitly comparative: They characterise a smell in terms of its similarity to the characteristic smells of sources of smells that are salient within the linguistic community. By developing this thesis, we can explain how, and to what extent, we can communicate about the smells around us compatibly with the lack of a dedicated smell lexicon and the poor codability of the olfactory domain.

¹As the body of work by Majid and colleagues highlights, not all languages exhibit these features. In this article, I focus on English.

²It is not obvious that even these are abstract olfactory terms (see Section 2.1).

³As this notion of codability clarifies, the claim that smells are ineffable is not (just) the claim that our olfactory experiences are ineffable (for that claim, see e.g., Lycan, 2014, p. 5). The latter claim would presumably equally hold of, say, colour experiences; I am concerned with the sense of “ineffable” on which colours are not ineffable even though smells are.

This proposal has implications for how we think of the relation between language and perceptual appearances. Philosophers have long been interested in the way we talk about perceptual appearances, often with the belief that language would provide insights into the nature of perceptual experience and the entities we perceive (Breckenridge, 2007; Brogaard, 2014, 2015; Chisholm, 1957; Glüer, 2017; Jackson, 1977; Martin, 2010, 2020). Within this tradition, which has focused primarily on visual appearances, the majority view is that at least some appearance reports are about our perceptual experiences or some other psychological states in which things seem a certain way to a perceiver; moreover, a special sub-class of “phenomenal” appearance reports directly, that is, non-comparatively, characterises how things appear to one, and reflects the content or the phenomenal properties of one’s experience (e.g., Brogaard, 2014, 2015; Glüer, 2017). For instance, the report “the tomato looks red”, if phenomenal, can directly report on how the subject visually experiences the tomato—on some views, the report says that the subject has a visual experience representing the tomato as red. In contrast with this tradition, Martin (2010, 2020) has put forward an account of reports of visual appearance on which most of these reports are understood as comparative characterisations of the ways the objects around us look, where the looks of things are ultimately a matter of the objective visible properties of those things, such as their colours and shapes.

Focusing on the domain of smell gives us a fresh perspective on this debate. The evidence on the lack of specific terms for smells—as well as further evidence from linguistics and research on olfactory categorisation that I will discuss in what follows—provides independent and so far unappreciated support for a comparative account of smell reports. We seemingly cannot describe the character or quality of smells directly, and often appeal to terms for sources of smells. A comparative account of our reports of perceptual appearance, thus, enjoys a special plausibility in the domain of smell that it does not obviously enjoy in the visual domain. Still, Martin’s account of look reports provides a useful framework for understanding comparative reports of perceptual appearance.⁴ Adapting this framework to the case of smell, I outline a view on which smell reports are about the smells of ordinary things around us, rather than about our experiences or their properties, and on which elements of subjectivity within our smell discourse are explained by appealing to the distinctive features of communication by means of comparatives. I will conclude the article by highlighting what I take to be the lesson from the case of smell for the debate on language and perceptual appearances more generally.

2 | SMELL REPORTS AS COMPARATIVES

2.1 | A special kind of simile

Consider a smell report that is explicitly comparative:

- (1) The perfume smells like lavender.

On the face of it, report (1) characterises the smell of the perfume, answering the question “how does the perfume smell?”. It does so in the way that similes do: It characterises the smell by telling us that it is like something else—lavender. However, it is a special kind of simile.

⁴While I adopt a version of Martin’s analysis of comparatives, my account of smell reports does not assume that Martin’s specific metaphysics of looks holds for smells too (see Section 2.2).

Similes are usually defined as involving figurative, that is, non-literal, comparisons between entities that are “fundamentally unlike each other” and “require one to figure out an intended relation between source and target concepts” (e.g., Israel et al., 2004). With smell reports, the intended relation is explicit: The appearance verb “to smell” specifies which aspect of the kind roses is relevant when evaluating this comparison, that is, their smell.⁵ As a result, smell reports like (1) are to be understood as (literally) comparing smells with smells, and not entities that are fundamentally unlike each other.

Martin’s (2010) account of look reports gives us the resources to spell out how reports like (1) work. Martin argues that many reports of visual appearance have an implicit comparative structure, and characterise the look of an object in terms of its similarity to the look characteristic of things of a certain kind. “The tomato looks red”, for instance, characterises the look of the tomato as relevantly similar to the look characteristic of red things.⁶ Adapting Martin’s proposal, the content of report (1) can be articulated as:

(1*) The perfume has a smell which is relevantly similar to the smells characteristically had or given off by lavender.

If we take the research summarised in Section 1 as our starting point, “lavender” is not a term for an olfactory property or smell, but instead denotes the kind property of being lavender, which is a property of plants and flowers. If so, “lavender” in (1) does not directly qualify the smell. Instead, as (1*) shows, it specifies the comparison class, or what the smell is being compared to. Because the appearance verb specifies what the relevant respect of comparison is—the smell—the comparison class is best construed as the class of the characteristic smells of lavender.⁷

Comparative appearance reports of the form “*o* looks/smells/sounds ... like an F/like Fs” characterise the appearance of the subject *o* with reference to things of a certain kind F without making a commitment to *o* being of that kind. Just like a comparative look report such as “that looks like a sheep” may be true of an object that is not a sheep (e.g., a white and fluffy dog), a smell report such as (1) may be true of something that is not a lavender plant or flower or indeed does not contain any lavender matter—for instance, the perfume may be a completely artificial one. This is so because the smell of the perfume can be relevantly similar to the characteristic smell of lavender independently of whether or not its source or bearer (the perfume) is of the F kind (lavender). By considering the role that predicates play when embedded in smell reports as complements of the appearance verb, we can explain how we succeed in characterising smells compatibly with the linguistic evidence we started from. The non-olfactory, source-based predicates we do have in English can, after all, be used to describe the character of smells.

Report (1) exemplifies a common strategy for talking about the way things smell. The term of comparison in a smell report can be specified by appealing to properties of familiar objects that typically give off smells (e.g., banana, toast, ripe, rotten) and the stuff these objects are made of (e.g., wood, metallic, milky). Moreover, we can appeal to sensible properties of these

⁵Similes involving appearance verbs are thus similar to standard similes involving a “third element” which specifies the respect of comparison, as in “her grin was as curved and sharp as the blade of a sickle” (cited in Israel et al., 2004).

⁶Martin defends a specific view of the logical form of comparative look reports (for critical discussion, see Glüer, 2013). Here I focus on a more abstract claim and remain neutral on the precise form of smell reports.

⁷I discuss this notion of a smell in Section 2.2 and the notions of characteristic smell and comparison class in Section 2.3.

objects and stuffs that we can perceive in other sensory modalities, such as taste properties (e.g., sweet, sour) and tactile properties (e.g., warm, cool). However, many reports where this strategy is employed do not seem to have a comparative structure. For instance, we can say that something smells of wood or that it smells ripe. Sometimes, a noun such as “smell”, “odour” or “scent” is used, as in “this flower has a sweet smell”.⁸

Within the philosophical literature, it is generally agreed that appearance reports that do not have the surface form of comparatives may be semantically comparative. As Brogaard observes for the case of look reports, “grammar does not reveal whether the meaning, or semantic value, of a ‘look’ statement is comparative or non-comparative” (2014, p. 457; see also e.g., Chisholm, 1957, p. 48; Jackson, 1977, p. 33; Martin, 2010; Glüer, 2017, pp. 786–788). On my proposal, smell reports are understood as semantically comparative whatever their surface form. Consider:

- (2a) The perfume smells like lavender.
- (2b) The perfume smells lavender-y.
- (2c) The perfume smells of lavender.
- (2d) The perfume has a lavender smell.

While there may be conventions and pragmatic considerations that inform one’s choice of a report among (2a)–(2d) in a context, these reports do not seem to differ in content, at least not to the extent that it would be plausible to take some (such as 2a) but not others to have comparative import. All these reports characterise the quality or character of the smell of the perfume, and all can be used to answer questions like “what does the perfume smell like?” or “what sort of smell does this perfume have?”. Roughly, what they say is that the perfume has a smell which is relevantly similar to the characteristic smell of lavender.

That diverse constructions featuring perceptual appearance verbs can have a comparative import is a point acknowledged within the sensory linguistics literature.⁹ For example, Gamerschlag and Petersen (2012) note that “o sounds F” reports such as “the melon sounds ripe” can be conceived as incomplete comparisons as they can be paraphrased by reports such as “the melon sounds like a ripe melon (sounds)” and “the sound of the melon is like the sound of a ripe melon”—and this applies to other perceptual appearance verbs too (pp. 10–11). Philosophers agree that these are at least sometimes good paraphrases, with Chisholm (1957) observing that sometimes “the point of the locution ‘x appears so-and-so’ ... is to compare x with things that are so-and-so” (p. 45).

Constructions featuring the preposition “of” have been argued to be implicitly comparative. “John smells of coffee”, for instance, means that the smell of John is like the smell of coffee, regardless of the nature of the source of the smell, which does not have to be coffee (Staniewski & Gołębiowski, 2021, pp. 434–435). The point can be extended to cases where “of” is preceded by a noun such as “smell”, “odour” or “scent”, which takes on the role of specifying what aspect of the subject the report is concerned with. “The perfume has a smell of lavender”,

⁸While I will not discuss reports with propositional complements here, there are no obvious obstacles to adopting a comparative account. For instance, “the room smells like something is burning” can be taken to mean, roughly, that the room has a smell which is similar to the characteristic smell of burning processes.

⁹Some of the following authors focus on languages other than English, such as German, French, and Polish, that feature similar constructions; the authors extend their observations to the English translations of their examples.

for example, characterises what sort of smell the perfume has, whether or not the perfume contains any lavender or lavender extract (e.g., Kleiber & Vuillaume, 2016, pp. 220–223).¹⁰ These claims fit well with the intuitions of some native speakers, who find that “like” and “of” constructions can be used almost interchangeably, where “the intent of the statement is the determining factor”.¹¹ Indeed, we can find contexts where both constructions are used to the same effect: “Red and pink roses often smell like what we think of as a ‘rose’. White and yellows often smell of violets, nasturtium and lemon”.¹²

In general, smell reports featuring a variety of constructions are not committed either to the predicate “F” applying to the subject of the report or to the smell described coming from an F source.¹³ That is, they concern the character of the smell that the subject of the report (e.g., the perfume) has or gives off, independently of whether the subject has the non-olfactory property of F-ness. On my proposal, this is so because all these reports characterise the smell of the subject comparatively—where “F” picks out the comparison class—rather than by directly attributing olfactory properties.

One may wonder whether the commitments of our smell reports can be accounted for without appealing to an implicit comparative structure. On this alternative, at least some smell reports attribute properties to smells directly. Whenever a smell report features a predicate “F” that does not directly apply to smells, the predicate is to be interpreted as denoting another F* property that is an olfactory property. Consider a report like (2d), which on the face of it does not look to be comparative. Given that a smell cannot literally be lavender, for instance, one interprets “lavender” in (2d) to designate a certain floral and fresh olfactory property, call it lavender*.¹⁴ While lavender (the plant) characteristically has lavender* smells, all things with smells that we would classify as “lavender smells” have smells with this property, for instance artificially fragranced soap. Since smells *can* be lavender*, report (2d) is a direct, non-comparative description of a smell. One could then extend this account to verbal constructions such as “o smells F” (e.g., “the fruit smells ripe”), where the verb “to smell” would trigger the “olfactory” interpretation of “F”.

One might find this alternative appealing if one considers that there seem to be in English some, if few, predicates for smells or olfactory properties. Setting aside evaluative or hedonic predicates, an example may be “musty”, which can be used to mean a stale, mouldy smell.¹⁵

¹⁰The phrases “the smell of *o*” and “the smell of F” can also be used differently. The first construction can be used to mean the smell of a particular object salient in the conversational context (e.g., the perfume), where “of” plausibly has the function of indicating either a property relation—much like “the colour of *o*” does—or a kind of product-source relation—meaning the smell emanated or given off by the source *o*, whatever its character. The second construction can be used to mean the smell or smells produced by Fs regardless of their qualities, as in “the smell of coffee is the result of hundreds of molecular compounds”. In these cases, we do not have a description of the quality or character of the smell—Levinson and Majid call this a “transparent” reading (2014, p. 411).

¹¹Quote from a forum discussion of “of” and “like” constructions: <https://english.stackexchange.com/questions/217878/are-smell-like-and-smell-of-the-same>. Other native speakers in the forum disagree, and find that, for instance, “this smells of lavender” is inappropriate when the source is not, or does not contain, lavender; on this see Section 3.2.

¹²Source: <https://thesmellofroses.com/the-smell-of-roses/>

¹³This supports views on which “to smell” is not copular. For discussion, see for example Staniewski and Gołębiowski (2021).

¹⁴In other cases, the olfactory property picked out would be quite indeterminate—for instance, the property shared by all “floral” smells (consider also “spicy” or “edible”).

¹⁵“Musty” is cited as an example of olfactory predicate by Majid and Burenhult (2014).

Now, “musty” is arguably not a specifically olfactory and abstract predicate, because it also means being spoiled with damp, mould or mildew.¹⁶ But it does differ from other predicates because it can feature not only in smell reports (e.g., “these clothes smell musty”), but also in direct descriptions of odorous things, and still mean a certain olfactory property (e.g., “a musty room”, meaning a room with a musty smell).¹⁷ If we focus on this feature, we might conclude that there are many more English predicates that can characterise smells directly, in spite of being source-based. For instance, there are contexts where adjectives like “lemony” can be used to mean certain kinds of smells without being embedded in a smell report: “A lemony cake” can mean a cake with a lemony smell.

These observations, however, do not support the conclusion that smell reports featuring these predicates are non-comparative. Source-based adjectives like “lemony” plausibly have a comparative import: They mean similar to, relating to, or suggestive of, the relevant kind of source.¹⁸ Thanks to the productivity of English, we can easily form new adjectives from nouns for ordinary objects and stuffs, as in “lavender-y”, “milky”, “floral” or the more explicitly comparative “coffee-like”, which can characterise smells and flavours, but also textures and looks. In contexts where it is clear that we are concerned with the way things smell—for example, if one is replying to “how does that smell?”, or within a smell report—the adjective is interpreted as characterising a smell—comparatively—with reference to the kind of thing that the adjective is derived from (e.g., lemons, lavender, milk and flowers). “Musty” may be an example of this common linguistic phenomenon where the olfactory use has become established.¹⁹ What happened with “musty” may be analogous to what happened with predicates that we can use to describe the visual appearance of things but that originally denoted plants and flowers, such as “lilac”.

Given this, a direct attribution view is not easily applicable to many constructions. We have smell reports that linguists take to have comparative import, namely those involving “like” and “of” prepositions, such as (2a) and (2c). Other smell reports feature adjectives that derive from nouns for sources, such as “lavender-y” and “lemon-y” that themselves are comparative in meaning. But there does not seem to be a significant difference in meaning between reports belonging to these categories, such as (2b) and (2c), and certain reports that do not, such as (2d), as all can be used almost interchangeably to answer questions such as “how does the

¹⁶See for instance <https://www.merriam-webster.com/dictionary/musty>. Oxford Learner's Dictionaries gives the smell-specific meaning of “musty” but also lists “dank” (“slightly wet, cold”) as a synonym. Etymologically, “musty” seems to have originated from “moisty”, meaning moist, damp. “Sweet” and “acidic” are sometimes cited as further examples, but they do not seem to be specifically olfactory either. Sweetness is a gustatory quality and can come to characterise smells by association (e.g. vanilla smells sweet insofar as vanilla aroma is associated with sweet-tasting foods). “Acrid” arguably refers to an irritating property of objects and stuffs that we inhale when smelling—“sharp” and “pungent” are given as synonyms. Sources: <https://www.oxfordlearnersdictionaries.com/definition/english/acrid>; <https://dictionary.cambridge.org/dictionary/english/acrid>; <https://www.merriam-webster.com/dictionary/acrid>

¹⁷See for instance: <https://dictionary.cambridge.org/dictionary/english/musty>; <https://www.oxfordlearnersdictionaries.com/definition/english/musty>

¹⁸See, for “lemony”: “resembling or suggestive of a lemon” (<https://www.merriam-webster.com/dictionary/lemony>)

¹⁹The most promising examples of predicates that directly describe smells are intensity predicates such as “strong”. These are not specifically olfactory, as they can apply cross-modally (e.g., to tastes, visual brightness, audible loudness), but it is natural to think that smells themselves can be strong or weak. Some smell reports featuring intensity predicates are best understood as comparatives on the model discussed so far. For instance, a whiskey may smell strong in that it has a smell similar to the characteristic smell of drinks with a high alcohol content. I leave discussion of reports where “strong” instead describes the intensity of the smell to another occasion, and keep the focus on reports of olfactory quality in this article.

perfume smell?”. This suggests that adopting a comparative account for some but not others of reports (2a)–(2d) is difficult to motivate.

Moreover, there are two general observations that the defender of a comparative view can make about this alternative proposal. First, they could question whether the proposed view is genuinely non-comparative. For one could argue that for “lavender” to apply to a smell, that is, for the smell to be lavender*, is, after all, for the smell to be relevantly similar to the characteristic smell of lavender.²⁰ And lavender here is the plant or flower which, as this proposal acknowledges, is what we mean by default when using “lavender”. Second, they could note that our starting point in discussing smell reports were the widespread claims within the linguistics literature that English lacks predicates for smells or olfactory qualities and that a common description strategy is to appeal to terms for sources of smells. If we take these claims seriously, then the burden of proof is on alternative non-comparative views to show that we actually do have predicates for olfactory properties, even though it does not seem like we do.

2.2 | What smell reports are about

On the account I outlined, our smell reports are indirect characterisations of the way things smell—they are special similes. This contrasts with the idea, defended by various philosophers, that at least some reports of perceptual appearance have to be non-comparative or “phenomenal”, describing how things appear to subjects directly.²¹

One reason for positing phenomenal appearance reports is the idea that not all reports can be irreducibly comparative. First, with at least some look reports, it is possible to further specify non-comparatively a visual appearance that has been characterised comparatively (Brogaard, 2014, p. 462). For instance, suppose that in response to the comparative “this looks like a ripe tomato”, one asks “how can you tell?”; one can reply by listing some of the tomato's visible properties that are characteristically associated with ripeness: “It looks bright red, round and plump”. The latter report, Brogaard would hold, is a phenomenal one.

Whatever the plausibility of this point for the case of looks, in the smell domain we lack predicates that could play the role that colour and shape predicates can play in descriptions of visual appearance. Consider the comparative “the perfume smells like lavender”. While we might sometimes be able to characterise the smell further, or give grounds for our choice of report, we would fall back on comparative descriptions, saying, for instance, “the perfume has a floral, fresh, slightly herbal smell”.²² However, this does not prevent us from capturing olfactory appearances in subtle detail, as we know from perfume and wine reviews: Comparative characterisations can be more informative than non-comparative ones (Martin, 2020, pp. 107–108).

Another reason stems from supposing that appearance reports such as “o appears F”, when used comparatively, can be taken to mean something like “o appears the way in which F things (normally/in conditions C) appear” or “there is a (contextually salient) way of appearing

²⁰See Martin (2010, p. 174) on a similar proposal concerning looks.

²¹I here consider only some of the reasons offered in support of phenomenal reports. For further discussion, see for instance Breckenridge (2007).

²²It is always possible to use a demonstrative: “that’s how it smells” or “it smells like that”, said in the presence of a characteristic smell of lavender or even whilst spraying the perfume itself around (“smell it!”). However exactly demonstrative reports are to be understood (e.g., whether they are a kind of comparative), they do not specify the olfactory properties that the thing or the odour have.

characteristic of F things and had by *o*". These renditions make reference to the notion of something appearing some way; so it seems that we need an independent understanding of what it is for something to appear some way in order to understand the comparative; but then some appearance reports need to be irreducibly non-comparative, telling us how things appear without reference to the ways that other things (normally/in conditions C/characteristically) appear (see Brogaard, 2014, p. 458; Glüer, 2017, p. 787).

The account of smell reports I propose avoids this worry, because it does not make appeal to ways of smelling. Instead, it appeals to smells. For instance, smell reports (2a) to (2d) describe the smell that the perfume has or gives off. The comparison class—the smell or smells characteristic of lavender—is also understood in terms of such smells. In general, we can think of the characteristic smell of F as the class of the smells characteristically had or given off by Fs. These smells are—highly multidimensional—perceivable qualities or properties which account for qualitative identities, differences and similarities in how things smell. This notion of smells is compatible with a wide range of views concerning the nature of smells or olfactory appearances, as most theories in the philosophical literature accept that there are smells in the sense of olfactory qualities or properties, however exactly their nature is specified and whatever kind of things they are qualities or properties of.²³

On the comparative account I sketched, smell reports are about the smells of the things which are the subjects of the reports, and indirectly about those things. For example, (2a) is a description of the smell of the perfume, and thus of the perfume with respect to smell. An option that straightforwardly fits with the structure of smell reports is to take smells as qualities or properties of those ordinary things: These may include ordinary objects (a cookie), stuffs or portions of stuff (perfume, a cup of coffee), processes (cake burnings) and possibly regions of space (a room).²⁴ However, the account is also compatible with views—the majority in the literature—on which what we perceive in olfactory experience are odour objects (often construed as clouds or plumes of volatile molecules), rather than ordinary things, and on which smells are properties of these odour objects (e.g., Carvalho, 2014; Cavedon-Taylor, 2018; Richardson, 2018; Skrzypulec, 2019; Young, 2016). Report (2a), then, would be about the smell or olfactory properties of the odour object that the perfume is the source of.

On all these views, smells are something we can perceive and have direct knowledge of, without relying on any prior familiarity with other smells that the perceived smell may be similar to. That smell reports are irreducibly comparative does not mean that the reports cannot characterise non-comparative appearances. As Lycan observes, when I perceive a smell for the first time, I find out what it smells like; but here “like” does not indicate resemblance: The smell may be entirely novel and dissimilar from smells I have encountered before (2014, pp. 3–4).

I propose that the subject matter of smell reports are perceivable smells in our environment, and indirectly the entities that have or give off those smells. This contrasts with approaches in the literature on looks on which appearance reports are about perceptual experiences, mental states such as seemings, or the contents of these.²⁵ But this is not to deny that our smell reports can differ in their objective purport, with some being more closely tied to the perspective, current experience or past experiences of a particular perceiver. In what follows, I discuss how a

²³For an overview, see Batty (2010).

²⁴Mizrahi (2014) defends the view that smells are properties of stuffs.

²⁵For further discussion of the idea that appearance reports do not concern subjects' mental states, see Martin (2010, pp. 210–211).

comparative account on which smell reports are about objective entities can explain some of these differences. My explanation does not appeal to differences in what the reports are about, but instead to the variables at play in comparative discourse in general (Section 2.3), and to the communicative function of the reports in context (Section 3).

2.3 | Characteristic smells and similarities

Understanding smell reports as having the comparative structure exemplified by (1*) allows us to explain both the success and the limitations of everyday communication by means of smell reports. The first key element is the implicit appeal to the characteristic smell of certain kinds of things, which we can understand as the class of the smells characteristically had or given off by things of those kinds.²⁶ As Martin highlights, when understanding comparisons in general we engage in a “cognitive routine”: We try to retrieve a property or a list of properties characteristically associated with the kind *F* in the comparison class, relative to some respect (2010, pp. 170–174). To understand a smell report, then, we need to retrieve the smells characteristically associated with the relevant kind of thing. We succeed in doing so to the extent that the *F*s are entities that normally have or give off smells, these smells are recognisable and salient to us, and there is in our linguistic community a stable association between those entities and certain smells. These conditions are in agreement with observations about specific smell report constructions in the linguistics literature. Kleiber and Vuillaume (2016) point out in their analysis of “the/a smell of *F*” that the *F* needs to be “known to have, or be the source of, a characteristic odour” that is “recognisable” and “typical” (pp. 223–224). In understanding “o smells of *F*”, Staniewski and Gołębiowski (2021) observe, “the quality of the perceived stimulus is compared to a similar and therefore matching quality residing in the olfactory memory acquired during former experience” (p. 434).

For there to be a recognisable association between kinds of things and smells, there does not have to be a distinctive olfactory quality shared or even normally shared by all *F* things. Sometimes, the smells appealed to may be virtually the same, as in “this smells like Chanel n°5”. Sometimes, the smells may all be qualitatively quite similar to each other, as in “this smells of chocolate”. But smells may be recognisably associated with a kind of thing within a community even though they are not all more obviously qualitatively similar to each other than the smells associated with a different kind of thing, as in “this dish smells spicy”, where the smells characteristically given off by spices are very diverse (see Chastrette et al., 1988). Moreover, a shared false belief or stereotype can suffice to establish the association (Martin, 2010, p. 170). For instance, only some roses give off a smell at all and there is wide variety in quality among the smells of odorous roses; however, speakers understand the report “this smells like roses” with ease, plausibly because they are familiar with a stereotypical sweet rose smell—although “not all roses smell like roses”.²⁷

Because we can typically rely on such shared knowledge (or at least shared belief) about the odorous things in our environment, our reports, while comparative, do not need to rely on

²⁶One can also compare a smell to the smell of a particular thing; here I focus on reports involving comparisons between a smell and the smells of a certain kind of thing (the vast majority).

²⁷Quote from: <https://www.theguardian.com/lifeandstyle/2016/feb/14/roses-that-dont-smell-like-roses-james-wong> For another example, the phrase “the smell of natural gas” is easily understood even though natural gas is itself odourless and the characteristic smell is due to the mercaptan added by gas companies.

novel or idiosyncratic similes. Smell talk in English thus exemplifies an effective shared strategy to overcome the poor codability of a domain. By contrast, consider Levinson and Majid's example of colour talk in Yéí Dnye, which lacks dedicated colour terms. A Yéí Dnye speaker can convey that something is blue only by resorting to "fresh similes" that are not often or typically used by many speakers, such as "it has the surface appearance similar to the shallow sea over sand", or imprecise "indirect indication", such as when holding up a certain object and saying "it looks a bit like this" (Levinson & Majid, 2014, pp. 410–411).

At the same time, there are various potential obstacles to mutual understanding, because many variables contribute to specifying the characteristic smell. First, as has been highlighted in the literature on look reports, the context of utterance contributes to specifying some relevant restriction on the kind *F* that picks out the comparison class.²⁸ The report "this fruit smells ripe", for instance, may be taken to appeal to the characteristic smell of ripe fruit. However, this report could be used in response to smelling sweet, juicy strawberries as well as in response to smelling ripe durian. In the second context, the report may pick out the smell of the fruit as similar to the potent, oniony stench typical of ripe durian—a salient restriction on the kind ripe fruit that one needs to appreciate in order to assess the comparison made.

Second, one's interlocutors may not be familiar with the *F*s one refers to and their smells. An obvious example is a comparison to something only familiar to the speaker (e.g., "this smells of my grandma's perfume"). Here the audience will have only a minimal grasp of the report: They would grasp what it would take for them to understand the comparison, but fail to do so in the scenario (see Martin, 2010, p. 171). Typically, we come to know what *F*s characteristically smell like by smelling *F*s or the odours *F*s emit. However, it is possible to be familiar with the class of smells that a comparative report refers to without being familiar with the *F*s used to pick out those smells, because things of different kinds can smell very similar or even the same.²⁹ Someone who is familiar with the characteristic smell of popcorn through encounters with popcorn but who does not know anything about binturongs can understand "this smells like popcorn" and yet fail to grasp the comparison made by "this smells like binturong", even though binturongs are animals with the same toasted, buttery smell as popcorn.³⁰ One may understand a smell report making reference to *F*s that one has never encountered if one is aware of the association between *F*s and certain smells that one has experienced through encounters with some other things *G*. For example, one can become familiar with the characteristic smell of lavender by smelling especially realistic lavender-scented products only containing artificial fragrance. As long as one knows that those products have a "lavender" scent (e.g., the label says that, or others report that the smell is a "lavender" smell), one could understand reports (2a)–(2d).

Third, there can be variation across speakers in what they take the characteristic smell of *F* to be, depending on their previous experience. Baked goods, for instance, may be associated with buttery smells in France, sweet and cinnamon-y ones in Germany, savoury and olive oil smells in Italy. While subjects with differing past experiences may still recognise this whole range of buttery, savoury and sweet smells as smells of baked goods, they may consider some of these to be more paradigmatic, and this may affect their assessment of appropriateness of a smell report in a context.

²⁸On the role of context in appearance reports, see for instance, Chisholm (1957, pp. 45–47) and Martin (2010, pp. 176–177).

²⁹See Poulton (2020, pp. 250–251) for a discussion of the salience of sources in smell categorisation.

³⁰See <https://www.nationalgeographic.com/science/article/why-your-popcorn-smells-like-a-bearcats-butt>

That these variables affect communication by means of smell reports explains some of the linguistic data on the relatively low intersubjective agreement in smell descriptions—in contrast for instance with colour descriptions—among speakers of English and other languages of Western, industrialised societies (e.g., Majid & Burenhult, 2014). Cross-cultural studies have highlighted that in these linguistic communities smells are not very salient and are not talked about often (see e.g., Majid, 2021). This may result in speakers being less likely to share the same knowledge of the odorous things around them and the same paradigmatic examples of sources for certain kinds of smells.

The second element in a comparative smell report is the appeal to relevant similarity. Even if we assume that the similarity at stake is with respect to olfactory quality, there may be—and typically are—different respects in which a smell is similar in olfactory quality to other smells. For instance, we may say of a piece of milk chocolate that it smells milky because of the sweet, creamy notes in the smell. But, we may equally aptly say that it smells like cocoa, thus noting that the very same smell is similar in a (different) respect to the earthy, nutty smell characteristic of cocoa.

Historically, there have been various attempts to identify a set of basic or primary categories capable of mapping all of the perceivable olfactory qualities, but little consensus has been reached.³¹ Recently, researchers have highlighted that the multidimensionality and qualitative complexity of smells poses a general obstacle to such attempts. As Jraissati and Deroy argue, olfactory categorisation results only in “partial and variable convergence” because there are always many different aspects along which smells can vary and be compared (2021, p. 7). While the qualities of the stimuli categorised impose constraints, different speakers as well as the same speaker in different contexts may choose different categories for the same stimulus if they find different aspects of a smell salient in the context. Which comparison class is considered also affects the choice of similarity criteria (Jraissati & Deroy, 2021, pp. 5–8, 13–15; see also Kurtz et al., 2000; Wise et al., 2000). Since our smell reports are plausibly a linguistic expression of our smell categorisations, an account of such reports where similarities, respects and comparison classes play a key role fits well with this research.

A comparative account of smell reports can explain both the significant degree of intersubjectivity of our smell discourse and the ways in which the speakers' and audience's perspective and past experience can affect their choice, and understanding, of reports.³² There is no need to take our smell reports to be about subjects' experiences or other psychological states. In fact, our mutual understanding by means of comparatives relies on our familiarity with the perceivable smells and odorous things around us.

3 | COMMUNICATING WITH SMELL REPORTS

3.1 | Uses of smell reports

I have argued that we can describe the smells of things by means of semantically comparative reports. When we talk about smells, however, we are often interested in more than just olfactory appearances. An important function of smell reports is to convey what sort of olfactory evidence there is for taking things to be a certain way, where the subject of the report is, in virtue

³¹For discussion, see Zarzo and Stanton (2009).

³²As a result, the account has implications for various debates in the philosophy and science of smell. For instance, in an article focusing on context-dependent perceptual variation (Martina, 2021), I argue that various cases of apparent intersubjective disagreement about the way things smell do not motivate the claim that speakers perceive different smells, and are instead best explained by appealing to factors affecting their choice of smell report.

of its smell, the perceptual source of the evidence (e.g., Asudeh & Toivonen, 2012; Gamerschlag & Petersen, 2012; Gisborne, 2010; Whitt, 2010).³³ For instance, “the cake smells burnt” can be used to convey that there is olfactory evidence for the cake’s being burnt.

As Martin argues, it is helpful to distinguish between two ways in which our reports can focus on appearances as providing epistemic support for taking things to be a certain way: evidential and epistemic uses. When using an appearance report evidentially, one “puts forward” the proposition that things are a certain way and says that there is perceptual evidence (in a modality) for this (Martin, 2010, pp. 167–168). There are many examples of evidential uses in the olfactory domain as the focus of a linguistic exchange is often on how things are independently of how they smell, or on their non-olfactory properties. You might utter “the cake smells burnt” to point out that, based on its smell, the cake is likely burnt—you may be suggesting that the cake should not be served. Suppose now that you gain independent evidence that the cake is not burnt: Your friend reassures you that the cake is not burnt and that the smell is due to the dark caramel topping. You might reply “well, it smells burnt!”, perhaps with an emphasis on “smell”. In saying this, you no longer use the report evidentially. It seems plausible that “a necessary condition on the evidential use ... is that *o*’s being F should be an epistemic possibility for the interlocutors” (Martin, 2020, p. 5). Having ruled out that the cake is burnt, you retreat to a claim about the cake’s smell. But with this claim you may still convey that there is olfactory evidence for the cake’s being burnt: Based on that smell, one might infer that it is burnt. This is an epistemic use of a smell report.

In contrast with these observations, Brogaard (2015) has claimed that there are no widespread evidential uses of smell reports (p. 241).³⁴ According to Brogaard, evidential uses of appearance reports such as “*o* looks F” convey that one has undefeated evidence for taking *o* to be F (2014, p. 256, 2015, p. 240; see also Glüer, 2017, pp. 784–785). Furthermore, she argues, evidential uses exhibit the following feature: Given defeating evidence, *o* would stop looking F to a rational speaker. Given this criterion, it is indeed difficult to find evidential uses of smell reports. Brogaard’s criterion is most clearly satisfied by non-perceptual evidentials, such as “it sounds like tomorrow will be sunny”, said upon hearing the forecast, where the source of the evidence is testimony; it no longer sounds that way once you come to know, say, that the forecast was for yesterday (see Glüer, 2017, pp. 784–785). And there do not seem to be olfactory examples of non-perceptual evidentials. By contrast, cases like the above use of “the cake smells burnt”, which seem to be good candidates for evidential uses, do not satisfy Brogaard’s criterion: The cake does not stop smelling burnt to you once you gain independent evidence that it is not burnt. But adopting this strong criterion is unjustified as it rules out not just smell reports, but also many reports featuring other appearance verbs that are arguably used to convey that, based on how things appear in a modality, things are a certain way. Suppose one utters “the tomato looks unripe” to convey that, based on its look, the tomato is likely unripe; the tomato may well still look unripe to one once one comes to know that the tomato is ripe but belongs to a special variety that remains green when ripe. Rather, a rational speaker responds to defeating evidence by no longer being disposed to judge that *o* is F (e.g., that the cake is burnt), and so by no longer intending to convey that it is so, even though *o* may still look, smell, sound, and so forth, F (e.g., it may still smell burnt).³⁵

³³Sometimes the perceptual source is less determinate, and not a particular object, as in “it smells like something is burning”.

³⁴Brogaard calls these “epistemic” uses; I adopt Martin’s terminology.

³⁵Given this, I disagree with Glüer’s contention that perceptual reports can satisfy Brogaard’s (2017) strong criterion, even though I agree that what one conveys after gaining defeating evidence changes (p. 785).

In contrast with contexts where we use smell reports evidentially or epistemically, we might sometimes talk about smells and not be concerned with how things are independently of us. On the comparative proposal I outlined, smell reports are about the smells of ordinary things, and not about experiences or properties of these. But the proposal allows that a speaker might use a smell report to communicate something about the experience or psychological state that the speaker, or some subject, undergoes. Often, smell reports that are used subjectively feature predicates that themselves are understood with reference to a particular subject, or to subjects of a certain kind, or to psychological states. This may be the case with “calming” or “energising” as well as with hedonic or evaluative predicates like “nice” or “disgusting”, where the relevant effects on mood or hedonic reactions are relative to a particular perceiver or to a generic or paradigmatic perceiver. For the purposes of this article, I leave it open how smell reports featuring such predicates should be understood, to what extent they can be used to describe the olfactory quality of smells, and whether a version of the comparative approach applies to them.³⁶

However, reports that do not feature similar predicates can also be used subjectively. Consider a speaker who knowingly suffers from parosmia, a condition that causes people to experience the smells of familiar objects as distorted (see, e.g., Burges Watson et al., 2021). Presented with a freshly baked cake, our speaker might complain “the cake smells burnt!”. This report characterises the smell of the cake as similar to the characteristic smells of burnt things, or burnt cakes. But the speaker may not intend to make a claim about the way the cake is, even specifically with respect to its smell, such that they would expect their interlocutor to agree. They may instead focus on conveying what kind of olfactory experience they are having. A comparative characterisation of the smell of the cake, then, may be used to convey what it is like for the speaker to perceive the smell of the cake, in terms of what they (and perhaps they alone) find this smell to be similar to. One option is to think that the speaker’s intentions and conversational context affect the respect of similarity at play in the report, so that the comparison made is with respect to the psychological impact of the perceptual appearance—explicitly relativising the report with “to me” may also have this effect (Martin, 2010, pp. 213–217). In the above context, then, the smell report might say, roughly, that the smell of the cake is similar in psychological impact (e.g., in the recognitional response it elicits) to the characteristic smells of burnt things, so that the impact of the current smell on the speaker may be similar to that characteristic of burnt things on a generic or paradigmatic perceiver.

3.2 | Comparatives in context

I have argued that smell reports are fundamentally comparatives, and that they can play different communicative functions by conveying, in context, information about the non-olfactory properties of things, the evidence we have for certain propositions, and sometimes our psychological states. For instance, “the cake smells burnt”, which is fundamentally a comparative characterisation of the smell of the cake, can be used evidentially, epistemically, or subjectively, depending on the intentions of the speaker and the overall conversational context.

On this approach, then, there are no strong associations between particular constructions and communicative functions: Smell reports of any form are semantically comparative

³⁶For instance, one might think that “lavender has a calming scent” says, roughly, that lavender has a smell which is similar to the characteristic smells of things or substances that have a calming effect on the speaker, or on a generic perceiver.

(Section 2.1), and all can in principle be put to the same variety of uses—we just need the right context. This is compatible with some constructions being most often used in a certain way. For instance, the “*o* smells of *F*” construction may be often used evidentially, to convey that *o* is *F* and there is olfactory evidence for this; this may explain why some speakers find reports of this form inappropriate when the subject of the report is not *F* (see fn. 11). As we have seen, however, “*o* smells of *F*” reports can also be used non-evidentially to describe what sort of smell something has, including in contexts where the bearer or source of the smell is clearly not an *F* and one does not intend to suggest that it is—an example was the statement “white and yellow roses often smell of violets, nasturtium and lemon”.

Moreover, on the approach I sketched, there is no need to appeal to differences in the semantic structure of reports when explaining different communicative functions. This contrasts with proposals on which different readings of an appearance report are sometimes explained by different semantic roles played by the complement of the appearance verb. Focusing on reports involving evaluative predicates, Rudolph (2022) argues that sometimes the “*F*” predicate is applied to the ordinary thing which is the subject of the report, conveying that, judging by its appearance, the subject is *F*; sometimes, the predicate is applied directly to the perceptual appearance itself. “The spread looks splendid” can be used evidentially to convey that, based on its look, the spread features high-quality, varied and delicious food, and it can be used non-evidentially to convey that the spread has a splendid appearance.³⁷ Gisborne maintains that when a perceptual appearance verb is used non-evidentially, the “*F*” predicate modifies the verb rather than being predicated of the subject of the report (2010, p. 249). In these cases, a report “*o* smells *F*” is not paraphrasable with “to judge by its smell, *o* is *F*” (as with the evidential uses), but says instead that *o* has an *F* smell or, in other words, that *o* has a certain olfactory quality—as Gisborne (2010) puts it, the appearance verb means “is, with respect to a particular sense modality” (pp. 245, 248–250). Gisborne proposes the following test: With non-evidential uses, in contrast with evidential uses, the report cannot be followed by “but it isn’t really”. According to this test, he argues, reports such as “this cloth feels sticky”, “this food tastes sour”, “this paper looks pink” and “this food smells spicy” are non-evidential (*Ibid.*).

On the one hand, similar proposals are not plausible for reports of olfactory quality, such as “this apple smells ripe” or “the drink smells sweet”. The predicate, as we have discussed, is typically not directly applicable to the smell of the subject nor does it directly pick out an olfactory quality of the subject.³⁸ Smells are not the kind of thing that can be ripe or sweet (if sweetness is a gustatory quality).³⁹ On the other hand, we do not need to appeal to different semantic structures to account for the fact that sometimes a smell report is not appropriately paraphrased by “to judge by its smell, *o* is *F*” and sometimes it is. Whether or not this is a good paraphrase depends on the context. On my proposal, differences in what a smell report conveys are explained as different uses of a report with the same fundamental—comparative—structure in

³⁷Martin (2010, pp. 183–186) defends a similar proposal, but takes the ambiguity to be between a comparative and a non-comparative use of the report.

³⁸In some cases, the report features an adjective that, in context, applies to smells or flavours, such as “lavender-y”. But since these adjectives are comparative in import (Section 2.3), the first reading is not available: “This smells lavender-y” when used evidentially indicates that the source of the smell is lavender, not that it is lavender-y, that is, similar to lavender.

³⁹See footnote 16. This also speaks against the proposal by Gamerschlag and Petersen (2012) to distinguish evidential and non-evidential uses by appealing to differences in the meaning of the predicate, with some predicates referring to “sensory” qualities and some to properties that are only inferentially related to those. The quality referred to may be sensory and yet not an olfactory quality.

context. “The drink smells sweet”, in virtue of its comparative content, can be used evidentially to convey that the subject of the report is sweet, that is, that it has a sweet taste, and it can be used non-evidentially to describe the smell of the subject. An evidential use of “this smells sweet” is typical when one is smelling a drink or food, but strange when describing a perfume. The issue with Gisborne’s test is that it is highly context-dependent. We can easily imagine scenarios where “this food smells spicy” can be followed by “but it isn’t really”. A stew may well smell spicy to one while its smell misleads one’s expectations concerning the stew’s spiciness: The stew may smell like a spicy stew and yet be quite bland—as one would discover by tasting it. This context-dependence speaks in favour of accounting for the communicative functions of smell reports by appealing to the way these reports are used in a context.

4 | CONCLUSION

I have argued that most, if not all, smell reports are comparative: They characterise a smell as similar to the characteristic smells of certain familiar kinds of things. Comparative reports compensate for the lack of a dedicated olfactory lexicon and the poor codability of smells in English by allowing us to give sufficiently precise and intersubjectively understandable characterisations of the way things smell, which can serve various communicative functions.

The domain of smells gives us a fresh perspective when thinking of the relations between perceptual appearances and language. The research on language and categorisation specific to the olfactory domain provides independent, empirically grounded reasons in support of views on which smell reports in languages like English are comparative. The conclusion, however, is not that smell reports are unique among perceptual appearance reports. Taking as a starting point a domain where we lack specialised predicates for perceptual appearances and where appealing to comparatives is necessary, we can appreciate how often we appeal to comparatives in talking about perceptual appearances in other senses too. We have some specific predicates for visual, audible, tactile and gustatory appearances, such as red, loud, rough and sour. However, these are limited, and many of our appearance reports appeal to predicates that are not “abstract” and specific to that sense modality. Consider: “the peaches look ripe/sweet/like doughnuts”, “it sounds empty/metallic/like a large dog”, “this feels like velvet/creamy/like ice”, “the cake tastes stale/chocolatey/of coffee”. In these cases, the predicate does not directly apply to the look, sound, feel, taste or flavour, nor does it directly designate a basic perceivable property in the relevant modality. Moreover, it is doubtful that all these reports can be reduced without loss of informativeness to reports featuring exclusively modality-specific and “abstract” predicates. A comparative account is very plausible for these reports too, so the lesson from smells may be extended further. Reports such as “the tomato looks red”, which philosophers have often focused on, are very much the exception among appearance reports. However we account for them, there is no reason to take them as our paradigm.

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