

# Figures and the senses

## Towards a definition of synaesthesia

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It is usually taken for granted that synaesthesia (e.g., *sweet voice*) is a metaphor. However, the fact that partly different interpretations have also been proposed suggests that further research is needed. Based on a critical review of the alternative positions on the topic and on a detailed analysis of relevant data, I argue in this paper that synaesthesia (in both its conventional and living instances) is indeed a metaphor, displaying a conflict between separate sensory concepts that cannot be connected in terms of a consistent conceptual relationship. The clearer and more explicit account of synaesthesia proposed in this paper in turn fosters clearer understanding of (a) the relationship with other figures that can involve the senses, such as metonymy, hypallage, and simile, and (b) the possible role of (multi)sensory perceptual experience in conditioning association preferences in linguistic synaesthesia (e.g., *loud colour* vs. a less likely to occur *coloured loudness*).

**Keywords:** synaesthesia, perception, metaphor, metonymy, hypallage, simile

### 1. Introduction

Synaesthesia is a figure that associates linguistic expressions referring to different sensory modalities. The term synaesthesia includes both common phrases like *sweet music* and more creative uses such as for instance *a smell of withered music* (It. *un effluvio di musica appassita*, Govoni, *Lodore delle gardenie*). The literature on this topic is now extensive and I will not attempt to systematically review it here. However, a few points need to be mentioned, given their relevance for the discussion that follows.

While occasional observations concerning the use of synaesthesia by specific authors can already be found in earlier literary studies, it is only with the work of Stephen Ullmann (summarized in Ullmann, 1957) that synaesthesia became the object of linguistic analysis. The main finding of Ullmann's studies was that

synaesthetic transfers seem to follow a specific direction: they tend to go from the lower to the higher senses (e.g., *cold colour*, from touch to sight, while the opposite direction – something along the lines of *coloured coldness* – would be less likely to occur). Ullmann’s and many subsequent studies of synaesthesia drew their data from literary texts, and poetry in particular (among others, Whitney, 1952; Rosiello, 1963; Dombi, 1974; Mendelson, 1984; within the Cognitive Poetics framework: Shen & Cohen, 1998; Bruhn, 2011a; Tsur, 2012). One reason for this choice was that, given that synaesthesia is rare in non-literary texts, the latter wouldn’t have provided a sufficient number of instances of synaesthesia for quantitative, statistical observations (Ullmann, 1957, p. 276).

In contrast, many recent studies focus precisely on synaesthesia in “ordinary language”, as exemplified by the previously cited example *sweet music*. The growth of interest in cognitive approaches on the one hand and in neuroscience on the other has probably contributed to this shift from literary to ordinary language as a source of data. With their focus on cognitive mechanisms underlying linguistic expression, analyses conducted within the cognitive linguistic framework are understandably more interested in “ordinary language” synaesthesia than in the “extraordinary” and possibly idiosyncratic sensory connections to be found in poetry. These studies have emphasized the importance of the directionality principle in synaesthesia, which would confirm the general concrete-to-abstract directionality observed in conceptual metaphors (Shen & Cohen, 1998;<sup>1</sup> Shen & Aisenman, 2008; cf. Strik Lievers, 2015a, pp. 72–73 for a critical view). The problem of the rarity of synaesthesia in ordinary language has been partially overcome thanks to the advances made in computational methods for the extraction of information from large corpora (see the corpus-based studies of synaesthesia in Marotta, 2012; Ronga, Bazzanella, Rossi, & Iannetti, 2012; Strik Lievers, 2015a; Zhao & Huang, 2015).

As far as the neurosciences are concerned, recent decades have witnessed an increasing interest in synaesthesia as a neuropsychological condition (see the

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1. As Shen and Cohen (1998, p. 123) put it, “mapping from a more accessible concept onto a less accessible one is more natural than its inverse”. According to their study, this claim is verified also by experimental data, showing that low-to-high synaesthetic transfers are easier to comprehend. Within the same Cognitive Poetics framework, other scholars have also focused on the effect that counterdirectional transfers have on the reader. Tsur (2012, p. 240) observes that “upward transfer typically generates emotional effects, downward transfer – witty effects”. And Bruhn (2011b, p. 642), commenting on Shelley’s poem *To a sky-lark*, writes that “[t]he combination of directional violations with conceptual inconsistencies produces exactly that effect of “dizzying motions that destroys coherence” (Hall, 1980, p. 44) attested by sympathetic and unsympathetic readers of the poem alike”.

*Oxford handbook* on this topic, Simner & Hubbard, 2013).<sup>2</sup> Some scholars have suggested that linguistic and neuropsychological synaesthesia are in some respect comparable, or even connected (see Marks, 1990; Popova, 2005; Ramachandran & Brang, 2013; cf. Strik Lievers, 2015b for a critical discussion). Such studies explore possible perceptual bases for preferences observed in linguistic synaesthesia: it is therefore understandable that ordinary language represents a better source of data than poetry in this case too.

Whatever the type of data, whether literary or not, many studies have analysed synaesthesia for different purposes and from different perspectives. Surprisingly, the literature on theoretical issues seems to be more limited. Topics such as the precise nature of synaesthesia as a figure, and its relationship with other figures, are rarely discussed in depth. These are the questions I will address in this article.

Although there are, to my knowledge, few works entirely dedicated to providing a definition of synaesthesia as a figure, this issue is often mentioned in studies on figurative language in general. In these studies, radically diverse definitions of (linguistic) synaesthesia are found. Simplifying things somewhat, three main positions may be identified:

- Synaesthesia is a (type of) metaphor.
- Synaesthesia is somehow connected to metonymy.
- Synaesthesia (at least in its least creative form) is not a figure.

In the following sections each of these positions will be presented and critically examined, with a view to gaining a clearer understanding of the nature of synaesthesia.

As a preliminary step, it is therefore important to mention some important points concerning metaphor and metonymy, as these figures are intended here.

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2. In the *Oxford handbook of synaesthesia*, which gathers state-of-the-art contributions on the topic, neuropsychological synaesthesia is described as follows: “Traditionally, the term synaesthesia describes a condition in which the stimulation of one sensory modality automatically evokes a perception in an unstimulated modality (e.g., the sound of a bell leads the synesthete to experience the color pink [...]). While this definition describes a cross-sensory association, synaesthetic experiences can also be intrasensory (e.g., the letter “g” triggers a blue photism when read). The stimulus (bell or “g”) that triggers the synesthetic perception is referred to as *inducer*, while the resulting experience or *percept* (blue) is called the *concurrent* [...] Not all inducers are sensory, however [...] For example, in “time-space” synaesthesia months take on location in space, and this can occur whether the months are read, heard, or even thought about” (Johnson, Allison, & Baron-Cohen, 2013, p. 3).

## 2. Metaphor and metonymy from the perspective of conceptual conflict

As is well known, metaphor is the figure that has been most widely studied, from many different perspectives. Since the “cognitive turn” (Ortony, 1979; Lakoff & Johnson, 1980) also metonymy became a major topic, in itself and with regard to its relationship with metaphor (among others, Barcelona, 2000a; Kövecses, 2002; González-García, Peña Cervel, & Pérez Hernández, 2013). The literature on metaphor and metonymy is now extensive, and constantly expanding. To give an idea, the *Bibliography of metaphor and metonymy* (Barcelona & Ruiz de Mendoza Ibáñez, 2014), mainly including references from 1990 onwards, contains approximately 11,500 records. While it is of course not feasible to review such a vast literature, nor is it the purpose of this paper, I will at least make explicit the main theoretical choices that inform my analysis of synaesthesia.

Following Prandi (2017), a key notion for understanding the functioning of figures, and especially of metaphor and metonymy, is that of conceptual conflict. This notion is crucial also for the present discussion, because it allows both to define (different types of) synaesthesia and to account for the interaction of synaesthesia with other figures within a unitary and coherent framework.

First, the presence or absence of a conceptual conflict underpins the distinction between living and conventional figures, respectively. Regardless the higher or lower degree of creativity that they display, conventional figures conform to shared conceptual models. For instance, *Investors are pouring money into the stock again*<sup>3</sup> is a conventional metaphor that conforms to the metaphoric concept of liquid money. This metaphoric concept can function as a framework for other metaphoric expressions as well (e.g., *flood of money*, *money injection*, *cash flow*, and many more that might be generated according to the same model). In contrast, the following lines by Longfellow (*The Slave's Dream*) contain living metaphors:

- (1) The forests, with their myriad tongues,  
Shouted of liberty;  
And the Blast of the Desert cried aloud,  
With a voice so wild and free,  
That he started in his sleep and smiled  
At their tempestuous glee.

The linguistic expressions used by the poet in these verses give rise to a conflictual meaning that challenges our consistent conceptual structures: the forests and the blast of the desert cannot cry as animate beings do. With Mark Bruhn, who also

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3. <http://financialmoneytips.com/are-you-buying-when-investors-are-getting-greedy-more/>

highlights the role of conceptual conflicts, we may say that the poet's choices allow to "exceed thought in expression" (Bruhn, 2011b, p. 620).

The second reason why the notion of conflict is crucial here is that metaphor and metonymy can be distinguished precisely based on the way they deal with conflict. Metonymy is a strategy to dispel the conflict by identifying a consistent connection between the conflicting concepts (Prandi, 2012, p. 154). Take, for instance, the *myriad tongues of the forests* in Longfellow's poem. The forests clearly don't have tongues. However, we have here a complex chain of consistent relations that first connect the tongues to the bodies they are part of, and thus to persons; the persons in turn generate the sounds of human language. The tongues may therefore be interpreted as metonymically referring to the voices of some persons located in the forests. In metaphors, on the contrary, there is no consistent relation that can deactivate the conceptual conflict. While in the case of metonymy the clashing concepts remain in their original domain and are simply linked through a consistent relation, in metaphors it is not possible to solve the conflict in the same way: the only available solution is to transfer a concept into a new and different domain. Metaphor is therefore an instrument of conceptual creation, which is left in the hands of the interpreter (Prandi, 2012). Take, for instance, the conflict between *forests* and *shouted*, *Blast of the Desert* and *cried* in the lines above by Longfellow. One possible interpretation is that the forest and the blast of the desert are animate, human beings that can shout and cry.

In both metaphor and metonymy, the concepts involved may be ontologically and conceptually close or distant. In the "artifact for human" metonymy *The first violin was nervous*, for instance, the violin and the person to which it metonymically refers belong to two separate and distant conceptual areas, namely that of artifacts and that of human beings. However, the event of playing connects these two areas in a consistent relation. In the case of synaesthesia, the conflicting concepts are clearly closer, given that they are all included within the semantic domain of perception. However, as this article sets out to show, this does not necessarily imply that it is possible to identify a consistent link between them.

### 3. The "default" view: Synaesthesia as metaphor

Let us begin with synaesthesia as metaphor. This is the default option found in the majority of studies, in which synaesthesia is defined as the "metaphor of the senses" (O'Malley, 1957, p. 391), or a kind of "metaphor that maps across various sensory domains" (Yu, 2003, p. 20). I call it the default position not only because it is that most commonly adopted, but also because it seems that the majority of authors do not feel the need to discuss it.

In studies by psychologists and neuroscientists (such as Day, 1996; Marks, 2011; Ramachandran & Hubbard, 2001), the term *synaesthetic metaphor* is used to refer to the linguistic phenomenon, as opposed to *perceptual* or *neuropsychological synaesthesia*. Many linguistic studies also describe synaesthesia as a metaphor, without discussing this choice. However, the fact that the literature also contains propositions that partly or completely differ from the “synaesthesia as metaphor” view shows that further discussion is needed: the inclusion of synaesthesia in the class of metaphors cannot be taken for granted. Here it will be argued that synaesthesia is indeed a metaphor, but this view will be justified against the background of alternative accounts. More specifically, I address the following issues: Why is synaesthesia a metaphor? What distinguishes it from other types of metaphor? What distinguishes synaesthesia from other figures that may also involve the senses? In order to try to answer these questions, and to attain a more complete understanding of the nature of synaesthesia, propositions diverging from the metaphor *tout court* view will be presented and critically analysed.

#### 4. Other views: Synaesthesia, metonymy, and experience

Let us first discuss those positions that, in various ways, link synaesthesia with metonymy. Most of the studies adopting this view have been conducted within a cognitive linguistics framework. As is well known, metonymy is central to the cognitive approach to figurative language (see Barcelona, 2000a and the references therein). According to Taylor (1995, p. 124), metonymy is “one of the most fundamental processes of meaning extension, more basic, perhaps, even than metaphor”. In his view, the metaphoric transfer from one domain to another is in some cases motivated by the co-occurrence of the domains in experience.<sup>4</sup> The conceptual metaphor MORE IS UP, for example, derives from a metonymic association based on experience: adding objects to a pile makes the pile higher. Metaphor takes place when this metonymic relation between quantity and verticality is applied to more abstract instances of addition, as in *high prices* (Taylor, 1995, p. 138). However, as Taylor observes, there are some counterexamples, i.e., metaphors that are not metonymically motivated. Instances of synaesthesia such as *loud colour* and *sweet music* are among those exceptions, because they “cannot reasonably be reduced to contiguity” (Taylor, 1995, p. 140).

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4. This view is common in cognitive linguistics approaches. See, among others, Dancygier and Sweetser’s (2014) definition of metonymy: “[M]etonymy is about relationships of correlation – things that occur together in experience, so that we associate them and can use the word for one to evoke the other” (Dancygier & Sweetser, 2014, p. 5).

#### 4.1 Synaesthesia as metonymically motivated metaphor (Barcelona, 2000b, 2008)

A few years later, Barcelona (2000b) extensively discussed the same examples analysed by Taylor (1995), with a view to demonstrating that, in line with his very inclusive interpretation of metonymy, synaesthesia does not constitute an exception. Like all conceptual metaphors, Barcelona argues, synaesthesia is motivated by metonymy. In *loud colour*, for instance, the relevant metonymy is of the EFFECT FOR CAUSE type. The metonymy lies in the emotional and cognitive reaction of the perceiver:

Both the metaphoric target and the metaphoric source are conceptualized metonymically from the *same* sub-domain [...] namely the effect on perceivers of both deviant colors and of deviant, loud sounds. This effect is that of irresistibly attracting the perceiver's attention. The abstraction of this commonality is due to the conceptually prior metonymic understanding of both DEVIANT COLORS and DEVIANT SOUNDS (as metonymic targets) from their typical effect, IRRESISTIBLY ATTRACTING THE PERCEIVER'S ATTENTION (as metonymic source).

(Barcelona, 2008, p. 10)

However, although we can intuitively recognize that there is some similarity between our reaction to “deviant sounds” and our reaction to “deviant colours”, this does not seem to be a necessary nor a justified step in order to interpret *loud colour*. The syntactic link between *loud* and *colour* cannot be disregarded. The interpretation of colour as “deviant” and “attracting the perceiver's attention” cannot be accessed through *colour* itself, but only through the connection of *colour* with *loud*. This becomes clearer if we consider, for instance, *loud suit*. It would be odd to maintain that, in order to interpret this noun phrase, *suit* has to be previously metonymically understood from its effect on perceivers. In both *loud colour* and *loud suit* the adjective *loud* modifies nouns referring to entities that are not included in the class of entities to which *loud* can consistently apply, namely sound-emitting entities. The syntactic connection between *loud* and the noun it modifies thus creates a conceptual conflict: it is a metaphor, since there is no consistent relation between them that can resolve the conflict.

If *loud colour* (like *loud suit*) is possibly not perceived as conflictual by speakers of English, the reason is that the metaphorical meaning extension of *loud* can be considered as lexicalised (or, as Goodman, 1968, p. 68, nicely and metaphorically puts it, “a term like ‘cold color’ or ‘high note’ is a frozen metaphor – though it differs from a fresh one in age rather than temperature”). As its treatment in many dictionaries suggests, *loud* may arguably be seen synchronically as a polysemous adjective, which is applicable to a wide variety of nouns with a (more or less) stable

sense of ‘vulgarily obtrusive; flashy’ (OED, s.v. *loud*). Of course, we also find examples of lively synaesthetic metaphors. Let us consider the following excerpt from Swinburne’s *Hesperia*:

- (2) As a wind sets in with the autumn that blows from the region of stories,  
Blows with a perfume of songs and of memories beloved from a boy,  
Blows from the capes of the past oversea to the bays of the present,  
Filled as with shadow of sound with the pulse of invisible feet

The reader of these lines is immediately struck by the conflict between distinct sensory domains. It is not possible to find a coherent relation between *perfume* and *song*, nor between *shadow* and *sound*, so a metonymic reading is excluded in both cases. Once the synaesthetic conflict has been recognized, the reader tries to interpret it. Whatever interpretation is chosen is contingent, that is to say, dependent on that particular text. This is precisely one of the properties of living metaphors (Prandi, 2012, p. 149). Unlike the case of *loud colour*, no new senses remain attached to the lexemes involved: *song* and *sound* do not acquire a new stable sense.

#### 4.2 The role of experiential contiguity (Dirven, 1985)

Barcelona’s (2008) is not the sole metonymic interpretation of synaesthesia that has been proposed. As mentioned in § 4, Taylor (1995) suggested that the metonymic motivation for metaphor lies in the notion of experiential contiguity, although in his opinion such contiguity is not encountered in synaesthetic metaphors. In contrast, according to Dirven (1985, p. 100), experiential contiguity is relevant to (conventional instances of) synaesthesia as well, so that synaesthesia might be thought of as occupying an intermediate position between metaphor and metonymy: “It is like metonymy in that the various sensory perceptions can be seen as contiguous, but it is also fundamentally different from metonymy in that the ground for the second stimulus is not immediately transparent and evident”. In *warm color*, for example, “[i]t is not the percept of touch itself which is transferred to sight, but some other experience that co-occurs with the touch of heat, e.g. the colours of the fire or of something glowing that is transferred” (Dirven, 1985, p. 99).

While according to Barcelona metonymy resides in the perceiver’s reaction, according to Dirven it lies in the experience of perception itself. Analogous explanations are also to be found in influential psychological studies on synaesthesia, such as those of Lawrence Marks. In relation to (again, conventional) synaesthetic associations, Marks (1990, p. 38) wrote that “[t]he prototypical warmth of reds, oranges, yellows, the coolness of blues, greens, and whites, may derive from experienced



associations of say, sunlight and fire with warmth, of water and shading foliage with cool”.

Nonetheless, I am of the view that experiential contiguity cannot be regarded as the motivation of synaesthesia. First, while for some examples the contiguity explanation may appear to be convincing, for many others it appears far less so. For *warm colour*, one might plausibly invoke the colours of fire, etc. (although, in reality, the higher the temperature of the flame, the “colder” the colour it takes on). However, for many other examples of synaesthesia it is difficult to follow the same line of reasoning. For instance, on what basis could we appeal to experiential contiguity in the case of *sweet music*? Second, and most importantly, even in cases like *warm colour* the fact that fire is red and warm does not justify us in claiming that (*red is a*) *warm colour* contains a metonymic component. This point is discussed further below.

Providing a typical and non-controversial example of metonymy can help, by contrast, to understand why contiguity does not justify a metonymic interpretation of synaesthesia. In an utterance such as *I drank one glass*, the speaker clearly uses *glass* to refer to the glass’s content, through metonymy. It is thanks to our background knowledge and experience that we are familiar with the relation between containers and their content. Glasses are objects whose function is to contain something, typically a liquid. Liquids, in order to be drunk, are often put inside a container. The relation between the glass and its content is simply described, made explicit by the metonymy: it is not created by it (see Prandi, 2017). Conversely, in expressions such as *red is a warm colour* there is no given relation between *red* and *warm*.<sup>5</sup> The colour red does not have the intrinsic property of being warm. *Red* and *warm* are two independent concepts; the relation between them is *created* by synaesthesia, it is not merely *described* as it is in the case of metonymies. It just happens that they may often, or in relevant situations, be associated. For instance, fire, which is warm, can take shades of red. The fact that fire is warm and red, however, does not imply that red is warm. The common association of these two sensory experiences may at most explain why we do not perceive the combination of their linguistic expression as conflictual. This, in turn, may have favoured the lexicalisation of the synaesthesia in *warm colour* (as is also the case for *loud colour*, discussed above). *Warm* may therefore be described as a polysemous adjective, which can qualify both temperature and colour.

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5. Moreover, it must be observed that a metonymic interpretation can only apply to saturated concepts (e.g., *glass*), while metaphor does not have this restriction (Prandi, 2017, ch. 5). Although the focus of the discussion is here on the experiential contiguity explanation, this is another strong argument against an interpretation of *warm colour*, or *loud colour* (Section 4.1), as metonymies.

### 4.3 The monosemy view (Rakova, 2003; Paradis & Eeg-Olofsson, 2013)

Rakova (2003) disagrees with interpreting adjectives such as *warm*, which can refer to multiple senses, as polysemous. In her insightful essay, Rakova called adjectives that can apply to different sensory modalities (*warm*, but also *bright*, *clear*, *sharp*, etc.) synaesthetic adjectives. However, she argued, these adjectives are not metaphorical, nor polysemous: there is no “extension” from one sense to the other senses. For example, in *warm temperature*, *warm colour* and *warm voice*, *warm* always refers to the same concept WARM. The reason is that “concepts BRIGHT, SHARP, COLD, and so on are psychologically primitive concepts spanning all domains of sensory experience” (Rakova, 2003, p. 142; cf. Popova, 2005, p. 399 for a critical opinion).

A similar position is also expressed in Paradis and Eeg-Olofsson (2013) and Paradis (2015):

Transitions across sensory domains in human language and understanding are monosemous and syncretic rather than metaphorical and polysemous. [...] Our contention is that it is not the case that SHARP smell is primarily a notion of touch. *Sharp* spans the experiences of sharp of the sensory perceptions of VISION, SMELL, TASTE, and TOUCH”. According to the authors, this view is justified by experience: “Lexical syncretism is grounded in how the conceptualization of our sensorium works. We cannot taste something without smelling something, and we cannot taste something without feeling something, and over and above everything is the sight of something. (Paradis & Eeg-Olofsson, 2013, p. 37)

The primary role of perceptual synaesthetic experiences in determining linguistic synaesthesia had long earlier been pointed out by Le Guern (1973), who concluded that synaesthesia is “la saisie d’une correspondance au niveau de la perception elle-même, en deçà de l’activité linguistique” (Le Guern, 1973, p. 51). In these analyses, synaesthetic adjectives thus seem to be a mere reflection of the multisensoriality of our perception (an issue on which much recent psychological research dwells, see Calvert, Spence, & Stein, 2004). On this basis, (conventional) synaesthesia would effectively cease to be a figure, simply being the linguistic description of our (multi) sensory perceptions. Here I will try to show that, although the role of perception should not be overlooked, synaesthesia is indeed a figure, in both its conventional and living form.

The functioning of perception should be taken into account in a study of synaesthesia. For instance, the degree to which we rely on, and the “importance” we attribute to the different senses may influence the relative likelihood that given sense associations will occur. The dominant role of sight and hearing in human perception, for example, may help explain why in many languages these two modalities are the most frequent targets of synaesthetic transfers (see the discussion in Strik Lievers, 2015a). However, although perception may be regarded as somehow

affecting the usage of linguistic synaesthesia, the level of perceptual experience and that of concepts related to perception should not be mixed up.

The fact that the way we perceive the external world often seems to be “fundamentally a multisensory phenomenon” (Calvert et al., 2004, p. xi), so that in many cases a perceptual experience cannot be distinctly ascribed to a single sense, does not imply that our sensory concepts are undifferentiated. On the contrary, the very fact that in order to describe the unity of our perceptions we cannot avoid mentioning the different senses, as the word *multi-sensory* itself testifies, is a clear indicator of the deep rootedness of the common-sense separation of the senses. To give one example, scientific evidence shows that our perception of food is a multisensory process, in which many different receptors cooperate to form a single perceptual experience (which many studies consider as a separate sense, the sense of flavour; see Auvray & Spence, 2008). However, Paradis and Eeg-Olofsson (2013), in the quote reported above, cannot avoid using the common-sense labels of taste and smell to describe this idea: “We cannot *taste* something without *smelling* something” (my emphasis). Describing the senses as cooperating, mixing and even blurring one into another does not imply that we need to posit a syncretic sensory category for synaesthetic adjectives. On the contrary, it means that we conceptualise the senses as separate. One may of course discuss if the inventory of five common-sense senses is universal (Nudds, 2011; Casati, Dokic, & Le Corre, 2014) or subject to cultural variation. Studies in the field of sensory anthropology bring evidence in support of the latter view, suggesting that “the bounds of sense and the senses (individually and as a totality) may differ across cultures. The mode of operation of the senses is also subject to variation historically and cross-culturally” (Howes, 2011, p. 436; among others, see also Classen, 1993; Young, 2005). The issue under debate, however, is how the sensorium is partitioned, not the fact that it is partitioned, in one way or another.

In sum, despite the multisensory, integrated functioning of our senses, the conceptualization of our perceptual experience partitions the sensorium into different senses. Linguistic descriptors of sensory experience therefore tend to be classified as pertaining to one sense or another, in line with our commonsensical conceptualization of the sensorium. In some cases such descriptors can be ascribed to multiple senses. This is the case of adjectives like *warm*. The temperature sense is diachronically prior to the others, and is perceived as dominant (OED). Its application to other modalities is thus a conceptual transfer, a metaphor. More precisely, it is a synaesthetic conceptual transfer. As already noted above, the lexicalization of such transfer, attested by the use of *warm* in phrases such as *warm colour/red/nuance* and *warm voice/melody*, allows us to view the adjective as synchronically polysemous.

Having hopefully made clearer what the nature of synaesthesia is, it is now possible to illustrate the relationship between synaesthesia and other figures.

## 5. Synaesthesia and its interaction with other figures

### 5.1 Metonymy

The examples of synaesthesia examined so far are all (more or less “lively”) metaphors, in which metonymy does not play a role, as discussed in §4. This, however, does not rule out the possibility that the conflict created by syntactically connecting the linguistic expression of two different sensory modalities can in some cases be deactivated via a metonymic interpretation. Let us consider the following examples, taken from Paissa (1995, pp. 86–87):

- (3) *Dalla torre / cade un suono di bronzo* (Montale)  
 ‘A sound of bronze falls from the tower’
- (4) *Ils restaient là tous deux, immobiles, muets dans le silence noir* (Maupassant)  
 ‘They remained there, both of them, still, mute in the black silence’

The quotation from Montale contains a metonymy in which an object is referred to via the material it is made of: the sound of bronze refers to the sound of bells. However, this does not imply that, as Paissa (1995, p. 86) appeared to suggest, *un suono di bronzo* should be interpreted as a synaesthesia based on a metonymic mechanism. The material-object metonymy only concerns the noun *bronzo* and its reference, while the synaesthesia resides in the relation between *suono* and *bronzo*.<sup>6</sup> We may therefore say that *un suono di bronzo* is a synaesthetic metaphor that includes a word, *bronzo*, whose reference is accessed metonymically. If *bronzo* is interpreted as referring to the bells, then its relation with the head noun *suono* loses conflictuality.

A similar situation is found in the second example, where *silence noir* is used to describe two people staying silent in a dark stable. According to Paissa (1995, p. 87) the metonymy is in this case to be found in the referential contiguity of the sensory data in the situational reality. However, as Prandi observes in commenting on this same example, the metonymy only regards *silence*, which may be interpreted as referring to the black (i.e., dark) stable, while synaesthesia remains as a competing option: “If metonymy is chosen, the stable becomes the relevant textual topic and attracts the adjective *black* into a consistent relation at the expense of synaesthesia: the stable is both dark and silent” (Prandi, 2017, p. 111). As these examples show, the presence of a metonymy does not imply that we need to posit the existence of

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6. Although strictly speaking *bronzo* is not a sensory term, *suono di bronzo* may be considered as a synaesthesia if we adopt a wider definition of synaesthesia, which also includes expressions that are not specific to a single sense, but may nonetheless be viewed as perception-related, such as shapes, weight, materials, etc.

metonymic synaesthesia. It just witnesses that it may happen, and it often does happen, that metonymy and synaesthesia are both present and that they interact. As Prandi (2017, p. 111) contends in relation to the second example, it is as distinct figures that synaesthesia and metonymy typically co-occur and compete in texts.

## 5.2 Hypallage

Similarly, synaesthesia may also coexist with hypallage.<sup>7</sup> As an example of hypallage involving sensory lexemes we may take the following “transferred epithet” cited by Ullmann (1957, p. 197): *the brown dryness of her hair*. The syntactic connection between the noun *dryness* and the adjective *brown* creates a synaesthetic conceptual conflict. However, the adjective *brown* semantically applies to the noun *hair*, instead of modifying its head noun *dryness*. In our example, if the hypallage is recognized, and the phrase is thus interpreted as ‘the dryness of her brown hair’, the synaesthetic conflict between *brown* and *dryness* is weakened. Analogous considerations apply to the following example also mentioned by Ullmann (1957, p. 197): *Le double tintement timide, ovale et doré de la clochette* (‘the double peal – timid, oval, gilded – of the visitors’ bell’,<sup>8</sup> Proust, *Du côté de chez Swann*). The sight-related adjectives *ovale* and *doré* refer to the noun *clochette* (which is likely to be oval and gilded), although their syntactic head is the hearing-related noun *tintement*.

Hypallage can therefore coexist with synaesthesia in a similar fashion to metonymy, since both hypallage and metonymy are strategies to deactivate the synaesthetic conflict. But it must be stressed that they are different strategies. Metonymy achieves consistency by acting on the reference of a saturated concept: in the example in Section 5.1, ‘bronze’ metonymically refers to the ‘bells’, that is, the consistent topic. Hypallage achieves consistency by assigning the conflicting terms to their semantic head, which does not coincide with their syntactic head; but there is no change in reference, since the semantic head is the consistent topic (*hair* in *the brown dryness of her hair*).

It must also be noted that when hypallage coexists with synaesthesia, the latter is not completely deactivated by the former. The modifying function of the adjective is contested between its syntactic and its semantic head, and any interpretation may draw on either option. As Genette (1972) puts it, in commenting on the same Proustian example, “quelle que soit son origine, le prédicat *ovale* ou *doré* porte sur *tintement*, et, par une confusion presque inévitable, cette qualification

7. “[H]ypallage characterizes phrases in which the (apparent) syntactic scope of a qualifying term does not coincide with its (real) semantic scope” (Paillard, 2002, p. 176).

8. Translation by C. K. Scott Moncrieff (Henry Holt And Company, 1922).

est interprétée non comme un transfert, mais comme une ‘synesthésie’” (Genette, 1972, p. 42).

### 5.3 Simile

Another figure by which different sensory expressions can be associated is simile. Romantic poetry is particularly rich in sensory similes. In the following lines, for instance, Shelley likens sight (*light*) and smell (*scent*):

- (5) That his day’s path may end as he began it  
 In that star’s smile, whose light is like the scent  
 Of a jonquil when evening breezes fan it (Shelley, *The triumph of life*)

Swinburne concentrates two similes involving different senses in a single line:

- (6) Thy silence as music, thy voice as an odour that fades in a flame  
 (Swinburne, *Hesperia*)

Analogous examples of similes are often mentioned in studies of synaesthesia, with the more or less explicit suggestion that the two figures are connected or even overlapping. According to Anderson (1998, p. 199), for instance, synaesthesia “often takes the form of a simile”, and similes such as Shelley’s above may thus be defined as “synaesthetic similes” (see also Paissa, 1995, p. 92). However, similes by their very nature are incompatible with synaesthesia. Similes explicitly liken two concepts. In order for an analogy to be drawn, the two concepts cannot be coinciding. Similes compare independent, different concepts, no matter how similar or distant they are. Besides, “anything is like anything else” in some respect or other (Goodman, 1968, p. 77; see also Searle, 1979, p. 96). Stating, as Shelley does, that *light* is *like* a *scent* implies that *light* and *scent* are different concepts, though similar in some respects (it is left to the reader to interpret the precise nature of the analogy). The identity of the two terms of the simile remains unchanged: *light* still refers to light, and *scent* still refers to scent, or else it would not be possible to compare them.

Removing the word *like* would on the other hand produce a conceptually completely different figure. In *light is scent* the copula establishes that *light* and *scent* share the same referent, therefore creating a conflict between the distinct sensory domains to which *light* and *scent* refer, that is sight and smell respectively. Synaesthesia consists precisely in the overlap and interpenetration of concepts pertaining to different sensory domains. *Light is scent* is a conflictual synaesthetic metaphor, by which the conceptual identity of *light* is called into question. While simile both presupposes and maintains the separation of the sensory domains in question, synaesthesia mixes them, thus undermining their original identity.

In this section, I have mentioned various figures that can involve the senses. While some authors tend to discuss these figures together with synaesthesia, and often “mingle” them,<sup>9</sup> it has been shown here that there are good reasons to maintain a clear-cut distinction between these figures. Both metonymy and hypallage can, and often do, coexist and interact with synaesthesia in the construction of rich and complex sensory meanings. In contrast, simile and synaesthesia can only occur as distinct figures in text.

## 6. Conclusion

The primary goal of this article was to advance understanding of the nature of linguistic synaesthesia. While many scholars speak of “synaesthetic metaphors”, without further discussing their metaphorical status, the literature offers a range of further perspectives. Some of them suggest a connection with metonymy, based either on the perceiver’s reaction to perceptual stimuli or on experiential contiguity. Others seem to undermine the figurative status of synaesthesia by claiming that it reflects sensory associations that are already present in perceptual experience. A critical review of these alternative propositions has helped to show that synaesthesia is indeed a metaphor, featuring a conflict between concepts that cannot be connected via a consistent relation. It may be distinguished from other metaphors because the conflicting concepts are both sensory, referring to two conceptually separate senses.

The clearer and more explicit account of synaesthesia proposed here has in turn facilitated a clearer understanding of the relationship between synaesthesia and other figures such as metonymy, hypallage, and simile. All of these figures can involve the senses, and the first two can intertwine with synaesthesia. This can of course give rise to confusion. Although in practice the distinction might not be so easy to draw in some cases, the present analysis has shown that it is clear theoretically.

Two other key issues emerged in the course of the analysis, which are worth recalling here. First, it is essential not to mix perceptual experience and perceptual concepts. The role of the former is not to be ruled out, but the functioning of synaesthesia remains chiefly a matter of language and concepts, as is the case for all metaphors. Perceptual experience can play an external role, for instance in determining (together with other factors) the chances of “success” of given types of transfer with respect to others (Strik Lievers, 2015a). For instance, the fact that in

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9. Cfr. Legallois (2012, p. 67), who offers a very inclusive interpretation of synaesthesia: “La synesthésie-trope ne serait-elle donc pas le lieu même d’une unification des figures de l’hypallage et de la métaphore – et sans doute, de la métonymie?”



many languages odours are commonly described by taste lexemes, as in *sweet smell*, might (although this remains to be proven) be partly related to the close perceptual connection between smell and taste. But it must be stressed that reasoning about the possible role of perception with regard to linguistic synaesthesia only makes sense if the synaesthesia that is referred to is conventional synaesthesia. And this leads to the second point, that is to say, the distinction between living synaesthesia (e.g., *Let no sunrise' yellow noise /Interrupt this ground*)<sup>10</sup> and conventional synaesthesia (e.g., *sweet voice*). This distinction, reflecting that between living and conventional metaphors outlined in Section 2, is often overlooked. Many studies only consider examples of conventional synaesthesia. Others concern poetic texts but analyse examples of conventional synaesthesia as well, dealing with both of them in the same way. The distinction is, again, not always easy to draw in practice, but it is clear theoretically (and it is for instance witnessed by a different behaviour vis-à-vis translation, see Strik Lievers, 2016). It is therefore worthy of closer examination in future studies, especially in those that deal with the relation between linguistic synaesthesia and perception.

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10. Emily Dickinson, *Ample make this bed*.



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