Chromatic Conversations in Candoshi
A Reply and Some Further Reflections

Alexandre Surrallés
IN AN article entitled «On Contrastive Perception and Ineffability: Assessing Sensory Experience Without Colour Terms in an Amazonian Society» (Surrallés 2016), I affirmed that the Candoshi (an Amerindian people of horticulturists, hunters and gatherers of the Peruvian High Amazon) neither have in their language a term to name the concept of colour nor nomenclature to refer to specific colours. This data, corroborated in different specific surveys on colours that we have carried out among the Candoshi since 1998 in addition to the several years of fieldwork during the first half of the 1990s, contradicted the data presented in The World Color Survey (Wcs) (Kay et al. 2009: 155-157). Our conclusions thus added to the list of works by linguists and anthropologists who observe the absence of colour names in languages around the world¹, some of which also appear in the Wcs examples. The main author of the Wcs, Paul Kay, has questioned my data in a critical article (2018) with some unconvincing arguments, as I will demonstrate in the text that follows. However, the main objective of my article was not to present these facts that question Wcs data, but rather a very different one. So, before addressing Kay’s criticism, we would like to summarise briefly the purpose of the article.

After framing my research in the area of what has been called studies on «ineffability» (Levinson & Majid 2014) and after demonstrating that the Candoshi language does not have colour names, the main objective was to explore how the Candoshi can talk about colours without terms to name them. Detailed surveys of how Candoshi refer to the colours of objects allowed me to describe a technique I call «contrastive perception», which

¹. See, among others: De Vos (2011); Eczet (2016); Everett (2005); Hill (2011); Levinson (2000); Saunders (2000); Senft (2011); Wierzbicka (2008); Young (2011).
is used not only to talk about colours without specific terms for these, but also to evaluate the perception of things, in general, without any classic procedure of categorisation. This technique called « contrastive perception » has three fundamental characteristics, which I call comparison, context and instability. In short, and as far as colour is concerned, this technique is summarised in using a comparison to describe the colour of an object. For example, the colour of toucan feathers is like the fruit of the achiote tree (Bixa orellana). This comparison is always contextual, since without colour terms, the colour of things is not intrinsic to them and, therefore, not stable, since it depends on environmental circumstances in relation, for example, to luminosity. This is how the feathers, similar to the fruit of the achiote tree, can, in less luminous circumstances, be similar to the colour of blood and, in even less light, to the fruit of the hungurahua palm (Oenocarpus bataua). Indeed, as the comparison and the context introduce an element of contingency between the referent and the referenced, and therefore, indetermination, a large space for creativity appears from the combination of the multiple perceptive facets of the compared objects such as the polysemy of the references, allowing for the establishment of chains of very expressive analogies. Furthermore, since there is no rigid fixation in Candoshi between words and referents, there is no way to establish which of the terms corresponds to each object and therefore which is the original and which is the one compared. This anti-substantialist approach to the object during its description shows that there is no origin: these references are circular, working in a network, without an initial definition. This leads me to conclude that:

« Meaning in context, comparing and using the relationship between words and objects in a non-stable and creative manner, as appears to be the case in the mode of perception that we have termed “contrastive”, could express a particular way of treating sensory experience or precepts. Whereas conventional wisdom considers perception as a vertical relationship between the treatment of sensory data and the semantic identification of the category, in an ascending or descending direction, contrastive perception seeks to establish a horizontal relationship between labelled packages of sensory experience, as we have described. Each entity of the world can thus be described by a criterion context-dependent that, by the very dynamic nature of these criterions, will change of nature while described in relation to others » (Surrallés 2016: 975, see also Surrallés 2017).

Kay is not interested in these propositions to which he says he has nothing to add or subtract. He only aims to question my data related to the absence of names of Candoshi colours, according to the terms defined by the Wcs. For me, the article is an indivisible piece. The two parts into which Kay divides it are intimately linked in the demonstration of the
general proposition and one part cannot be explained without the other. The extrapolation of my text made by Kay seems to me problematic and unjustified at first glance and I believe it invalidates his entire criticism. Nonetheless, I will proceed to respond to his arguments point by point, beginning with the introductory methodological question of Kay’s response and then the three «facts» of my article that Kay considers wrong.

Methodological Issues

Paul Kay’s text begins with a reference to the methodology of the survey Wcs uses, which is questioned in my article. In essence, Kay criticises my claim that the method used both in the Wcs, and in the programmatic previous work of Paul Kay and Berlin in *Basic Colors Terms* (BCT) (1969: 1-14), establishes a list of colour terms before asking the informants about the scope of each of these terms on the colour palette. Kay states that this is not true and that a correction of the methodology used in BCT was made in the Wcs. Let’s see if this is accurate. In the BCT, the methodology pre-established these basic colours that the interviewers had defined themselves, to the extent that they knew the language or by talking to the informant. The data were gathered in two stages. First, the basic colour words of the language in question were elicited from the informant, using as little as possible of any other language. Secondly, each subject was instructed to map both the focal point and the outer boundary of each of his basic colour terms on the array of standard colour stimuli described above (Ibid.: 5).

The survey methodology carried out in the Wcs attempted to correct this point, which obviously skewed the whole survey and predetermined its result, in order to overcome this naive error of misconception. But does the new Wcs methodology really overcome this problem? The new Wcs methodology adds an additional, prerequisite stage called «Naming Task» to the single BCT process in order to correct the problem. This additional stage of the Wcs consists of first determining, with a supposedly objective method, the names of the basic colours in the language examined from each of the 330 individual colour stimuli, «one by one, according to a fixed random order, and a name was elicited for each» (Kay et al. 2009: 13). Now, if we look at the document «Instructions to Field Workers» (Ibid.: 585-592 and the link presented by Kay 2018: 96) signed by Brent Berlin, Paul Kay and William Merrified of the Summer Institute of Linguistics (Sil), we realise that the efforts made in the Wcs cannot overcome the flagrant problem presented by the BCT methodology. They do not overcome the difficulty because the survey discards any response from the informant that
does not fit what the results want to show: that is, that there are names of
colours in that language and that there are also some colours considered
«basic». I will not expand on this point. I think it is enough to reproduce
the titles of these instructions: «A Note of the Kind of Response We Are
Looking For» and «Defining the Concept Basic Color Term» (Kay et al.
2009: 587). These instructions, as their titles themselves indicate, allow
for free interpretation on the part of the Field Worker (I suppose a St.
missionary linguist) who can choose only those answers by the informant
which fit the idea of a «Basic Color Term» that is sought-after, in such a
way that the problem the Bct methodology attempted to correct is repro-
duced again in the Wcs. Of course, nothing in either the Bct or the Wcs
methodology demonstrates that for a given language there is a notion of
colour and words to name the colours considered basic. The idea that in
every language there are names of basic colours is a priori premise for these
studies and is not subjected to any empirical verification.

The Three Facts

After this methodological clarification, Kay’s article tries to refute the three
facts that I introduce to show the weakness of the data presented by the
Wcs related to the supposed terms for Candoshi colours and to conclude
that, in reality, there are no names for colours in this language.

The First “Fact”

«Terms that the Wcs has identified as Candoshi colours cannot be considered true
terms, that is monolexemic or morphologically simple terms for colours, as Berlin and
Kay claim (1969: 6). They are more complex syntactic constructions. For example,
ptsiyaromashi, the term for “yellow”, is constructed by using two morphemes, ptiyaro/
mashi, which means milvago/like, according to the Candoshi dictionary (Tuggy 1966:
64). The translation would be “like or similar to the feathers of a Milvago bird”. Another
example, kantirpi, was the term chosen to name the colour “black” and is composed
of three parts, kansi/ar/pi, that mean tar/have/towards, something like “is similar to
tar”, according to the dictionary (Ibid.: 26)» (Surrallés 2016: 966).

To dispute this «fact», Kay says in his reply that the terms ptsiyaromashi
or kantsirpi are actually «derived words» (2018: 98). This only confirms my
suspicion that it is not about «monolexemic» terms as would be necessary
according to the definition that he proposes of the «concept of basic colour
terms» (Berlin & Kay 1969: 5-6). Kay says that these terms are derived
words, similar to the English words «fishy», «horsey» or «sheepish» (2018:
94) and therefore they are not a «syntactically structured phrase» but a
word, a derived adjective. Against this affirmation it could be said that it

Alexandre Surrallés
is difficult to determine in an agglutinating language such as Candoshi the boundary between word and phrase. It is easier to determine when a word is monolexemic or when it is not, and several Candoshi terms for colour in the Wcs are not monolexemic. However, in addition, terms similar to these are explicitly questioned in rule 1 of the definition of the original notion when Kay states that derived adjectives such as « bluish » or « lemon-coloured » (among others) cannot be considered basic (Berlin & Kay 1969: 5-6). Moreover, rule 6 considers the terms for colours that « are also the name of an object characteristically having that colour » as the two Candoshi terms in question. In relation to this fact, Kay concludes with a somewhat paradoxical critique when he says that even if we consider that these two terms are « polymorphemic » (2018: 95), that is, they contradict rule 8 of the concept of basic colour according to which they must be « morphological simple » terms, this does not prove that the other colours of the list proposed by the Wcs do not conform to the basic colour criteria. So, contradicting any methodology of scientific testing that considers that a refuted case is sufficient to disprove the hypothesis, Kay believes that it is not enough for me to prove that two of the most important terms of the eight Candoshi terms for colour according to the Wcs do not conform to the concept of basic colour term to reject the set of data on Candoshi colours of the Wcs. We consider, on the contrary, that it is more than enough and, of course, we could add other terms like kavabana (a complex term formed by kavarol tama, parrot/similar, that is « similar to the feathers of the macaw »), although it is not up to us to deny each of the terms, as we could do very easily, to question the whole.

The Second “Fact”

« The supposed Candoshi colour terms are words or phrases that mean other things, but which have been regarded as terms only because of bias introduced by the linguist. Indeed, all the Wcs Candoshi colour terms refer to something other than colour. This can be verified by means of a simple experiment: if a Candoshi-speaker is asked what ptsiyaromashi or kantsirpi means, they will never answer “yellow” or “black”, but make reference for instance to a bird and a resin (tar) used to coat peashooters and as fuel for torches » (Surrallés 2016: 966).

Kay does not understand what I mean when I say that « if a Candoshi-speaker is asked what ptsiyaromashi or kantsirpi means, they will never answer “yellow” or “black” » and supposes that I am referring to the answers of Candoshi people with sufficient knowledge of Spanish to use the terms « yellow » (amarillo) or « black » (negro). In fact, I was referring not only to Spanish, but also to Quichua, which is spoken as a regional lingua franca by several Candoshi or even the terms in English known by the Candoshi
with some degree of school education. I refer to colour terms in other lan-
guages since I would have no other way to respond in their language that
kantsirpi is the name of a colour, since they do not have a term to refer to
the concept of colour. As confirmed by the linguist John Tuggy, contacted
by Kay, there is no « lexeme that corresponds to the concept » (Kay 2018 :
103). This is for me the most important point on which I base my criticism
of Kay’s works. As other linguists have already pointed out repeatedly, if
there is no term in the language for the concept of colour as a phenomenon,
we cannot assume that this concept is conceived of by the speakers of this
language in the same way as if it had a term assigned to it. It is only pos-
sible to presume its existence through the famous notion of covert category,
that is, assuming that colour is an implicit category without nominalising.
Now, the existence for the Candoshi of such a covert category of colour has
not been demonstrated in the data presented in the Wcs. Nor does Kay
demonstrate in his critical article that a term for colour implicitly exists
in Candoshi. Neither does the linguist Tuggy, who claims that despite not
having a lexeme for colour, Candoshi people « are very colour conscious »
(Ibid.) without saying on what this impression is based.

Kay also claims that I do not present evidence of why the supposed
Candoshi terms that have no-colour referents are not legitimate colour terms
like the English orange or the French marron. For Kay, both the Candoshi
and the English responses show that the terms for Candoshi or English
colours are « notionally motivated » (Ibid. : 96). However, my entire article
shows how the Candoshi people speak of colours through comparisons and
this without needing to involve a notion of colour or a motivated colour
nomenclature. This is significantly different than what occurs in European
languages in which there is a very stable notion of colour and a typology
of colours, learned since childhood. In any case, for a French or an English
speaker, when they are asked what « orange » means, they will reply : a fruit
and a colour, something that Candoshi people cannot do because of the
lack of a term for colour. They cannot and they will not. And besides, they
do not need to.

**The Third “Fact”**

« The list of Candoshi terms proposed by Kay, Berlin et al. has been arbitrarily put
together whereas other expressions and terms emerge when Candoshi speakers are asked
to name colours. In this respect, we interviewed a group of speakers, showing each of
them the chips composing the Munsell chart used by Berlin and Kay, separately and
randomly, and asked them to describe them to us in any way that came to mind […]].
Indeed, the Candoshi used a different term or expression to respond to each chip that
we showed them. The use of dozens of terms and expressions calls into question the
selective data on the Candoshi reported in the Wcs » (Surrallés 2016 : 966-967).
Approximate scope on the Munsell colour chart of the most used Candoshi terms to name colours in my survey (adapted by the author from Surrallés 2016: 966, 969):

boorshi (a), chobiapi (b), yobsa (c), kchomshi (d), koorashi (e), kachiva (f), ptsiyaro (mashi) (g), kantsirpi (h), goochi (i), ktsachi (j), kamachpa (k), tsarona (l), katama (m), kavabana (n), aroovi (o), tarika (p) and txobi (q); most of these terms refer to species or parts of animal or plant species.

Kay disputes my claim that the final list of alleged Candoshi colour terms is a fairly arbitrary selection made by the interviewer. He argues for his defence that the survey methods plan for a complex protocol – presented as an annex in the Wcs as we have already mentioned (Kay et al. 2009: 585-592) – which reduces the arbitrariness and the bias potentially introduced by the interviewer. I have consulted the survey methods and, as I have stated in the section entitled « Methodological Issues » above, these seem very questionable to me, in particular, with regard to inducing the interviewer to an arbitrary selection of the answers considered « good », in that they do not contradict the thesis that they want to demonstrate about the universal existence of basic colour terms. In addition, the entire survey assumes the existence of colour names, and a local notion of the concept of colour, which is what many linguists and anthropologists question, working independently and in languages of all continents, as cited in the introduction.

Kay also reproaches me for not using quantitative analysis to reinforce my criticisms. He could even blame me for not using the survey method he recommends to reach the conclusions he is interested in. In fact, I do not present quantitative data because my data is not statistically relevant so as to deduce from it « unquestionable facts » about the Candoshi language. The problem is that what the Wcs presents, at least for the Candoshi people, does not have any statistical relevance either. With only 11 respondents (Ibid. : 155), less than half the number (25) required by the « Instructions to Field Workers » (Ibid. : 585), statistical data on the Candoshi language in general cannot be extracted. Presenting this data as relevant from a statistical point of view seems illegitimate. Neither the Wcs data nor my own...
data allow for quantitative analysis. However, this is not a problem for my position as I never intended to propose results based on statistics but rather on a qualitative basis supported by several field studies on the subject. The problem is present, though, for the Wcs, since all its methodology is based on the reliability of the data and the derived statistics.

**Beyond Relativism versus Universalism**

This debate suffers from an imbalance that Paul Kay tries to correct by involving the linguist John Tuggy who worked with the Candoshi people as a Sil missionary. In fact, Kay does not know the Candoshi language and I do not believe he has ever spent time among its speakers. For this reason, he asks Tuggy a series of questions, whose answers he adds at the end of the article. The problem for Kay is that the opinions of the linguist Tuggy confirm my criticisms of the Wcs data. Let us examine, for example, the translations in English that Tuggy now proposes in the appendix added by Kay (Kay 2018: 102) for the Candoshi terms for colours, which according to him are more precise than the Spanish translations of his dictionary (Tuggy 1966). Not only do these more accurate English translations differ from the Spanish translations that he proposes in the same dictionary, but they also do not correspond to the English terms in the Wcs. One might even wonder if the English translation of the Candoshi colours now proposed by Tuggy and which includes terms such as « dark », « pale » and « light » can be considered English names of basic colours according to the conditions of the Bct and the Wcs. And the answer is that the said conditions would not admit these English terms as basic colour names. By this I only wish to point out that the question is much more complex than what Paul Kay’s works would have us believe. The battery of questions that Paul Kay (2018: 103) poses in a subsequent message by inducing John Tuggy’s answers only confirm the distance between the Candoshi linguistic reality and the Bct and Wcs theory. Indeed, John Tuggy does not deny that these Candoshi terms are « morphologically complex », and the most important point is that he confirms my opinion, as indicated above, that there is no lexeme to refer to the concept of colour in this language. I would like to return to this point that Kay specifically addresses in note 9 of his text (Ibid.: 101). Kay, in this note, asks how, if the Candoshi people do not have a word for colour, as I have pointed out, they can say, as those from Bellona Island have said, « we do not talk much about colour around here » (Kuschel & Monberg 1974). What the Candoshi people are expressing here, like the people of Bellona, is an ignorance of the concept of colour both in their language and in their practice. For this reason, colour is, for them,
something difficult to identify with precision even though we attempted to explain it to them, using arguments and examples, even going so far as to refer to the meaning of the word “colour” in Spanish when the Candoshi interlocutor had some knowledge of the Spanish language. Kay also points out the following in his note:

“Writers who suppose that lack of a word for colour in a language entails that the language can’t have words and (conceptual categories) for colours seem to either ignore (e.g., Lucy 1997), or decline to consider (e.g., Wierzbicka 2008), the existence of languages with words for “hot” and “cold” but no word meaning “temperature”. According to Tuggy (2008) this is the case for Candoshi: *ksani*, “caliente”, (hot/warm); *kachizá*, “frio” (cold/cool), no Spanish entry for “temperatura”. Also Tuggy (2008) lists Candoshi *ivaari* [sic] “arriba” (up) and *tsapoosho*, “abajo” (down) with no gloss indicating “vertical direction” » (2018 : 101).

I will not insist on the difficulties of sustaining the idea of covert categories such as those proposed by Kay for temperature and vertical direction, based on simple common sense which, as we know, is the least common of the senses. I have already indicated the difficulty of using this concept citing the article by the linguist Anna Wierzbicka (2008 : 419), which is very convincing on this point, more so than the answer given by Kay and Kuehni in a note on this issue (Kay & Kuehni 2008). I would simply add that, without having carried out surveys for several years as for the colours (just as I did to obtain the results on the absence of Candoshi colors object of the debate), the paradigms that Kay establish for the Candoshi people regarding temperature or vertical direction seem to me very debatable. I will simply mention two pairs of antagonistic words in the dictionary. The terms *ksani*, «hot/warm» and *kachizá*, «cold/cool», do not exactly mean «hot/warm» and «cold/cool», because they do not apply to everything concerning the temperature. We can speak of a *ksani* or *kachizá* body as being hot or cold, but not of a hot or cold morning, for example. As for the pair *ivaari*, «up» and *tsapoosho*, «down», they would not indicate vertical direction because these terms refer to the area of thicket at the top of the trees, and to the ground respectively. For example, a bird or plane is not *ivaari* when they fly over trees and oil is not found *tsapoosho* before being extracted from the earth.

With this response to Kay’s criticism I do not mean to say that works of a comparative nature, that seek to establish invariants of the human condition, are not possible. I believe they are desirable and necessary, and I wish to take this opportunity to express my admiration for the works of Paul Kay which I had the chance to read since my time as an anthropology student, despite disagreeing with the universalist thesis that inspires him. In fact, my own research aims to compare. It neither supports the universalist
theses in relation to the nomination of colours, nor does it show opposing relativist theses. For us, this debate between universalists and relativists running through the recent history of anthropology has been exhausted, at least in terms of colour nomination. What we propose is to investigate, from a comparative point of view, the logic of difference in what might be called the perceptual act, to show how there are different ways, beyond classic categorization, to translate a sensation of colour into its nominalisation. Also, we want to demonstrate how these alternative ways can become as efficient, or even more efficient, if we take into account the type of information to be transmitted and to whom it is directed. To conclude, we will advance this last objective by way of example, in order to show the possibilities of this perspective of study.

Precision and Scope: Final Considerations

From classical Aristotelian logic to the recent prototype theory in cognitive science, there is a long intellectual tradition that marginalizes ways of describing sensations that do not entail explicit categorization. Indeed, a large number of scholars consider procedures that appear by default, in the absence of a simple categorical decoding system as ways to alleviate the lack of abstract thinking by means of solutions, sufficient to allow for communication, but of poor quality and effectiveness. Contrary to these opinions, we believe that these alternative routes would not always be a ratio difficilis, as Umberto Eco (1975: 183) said, that is, ad hoc systems created when there is no possibility of communicating an experience through simple decoding (a ratio facilis). In the case, for example, of Candoshi contrastive perception, not only would it be a preferred way of communicating, chosen in the first instance, but it would also be a much more effective system of communication. In other words, the Candoshi prefer to use contrast, as I explained in my article (2016: 975), rather than to name colours with any specific names. Moreover, they prefer it because it allows them to communicate better, communicate more and more easily. In order to explain what may seem like a paradox – that without names of colours we can communicate more and better about colours – we will need to present some considerations. In general, it is thought that a statement – depending on its brevity, accuracy and precision – communicates a certain idea more or less clearly, better or worse. From this point of view, it would be absurd to think that there could be a better way to describe objects than by using the words that exist to name them. For example, what could be better than the names of colours to describe chromatic tonalities? However, this idea doesn’t take into account the fundamental relationship between the
meaning that a statement may contain and its ability to be understood by a greater number of interlocutors.

To develop this idea, we will introduce two concepts: precision and scope. Let us assume that every statement aspires to possess at the same time the highest possible precision (describing the highest, most accurate number of qualities of an object with the lowest possible predicates), and the widest possible dissemination or scope (the ideas contained in the statements are understandable by the largest number of interlocutors). It turns out, nonetheless, that in general, precision and scope offset each other, so that the higher the precision, the more restricted the scope and vice-versa. Let us take colour as an example, so as to stay on-topic. The statement, « object X is red » is easily understood by all English speakers, although the information attached to the object is very weak; it would be a statement with low precision, but wide scope. On the other hand, the statement, « object X is like a peach-palm fruit » specifies many characteristics of the object in question, among others, the hue of red, but presents a narrower scope because not every English speaker knows the fruit of the palm tree Bactris gasipaes. Taking into account the inversely proportional relationship between precision and scope, we can clarify the paradox referred to earlier when affirming that one can speak more and better about colours without specific colour terms. The technique that I have called contrastive perception allows us to describe colours without specific colour terms, in great detail, with efficiency and economy, that is, with great precision. However, it has a very low capacity for dissemination or scope because this communication technique based on comparison, contextualisation and contiguity requires the sharing of some lexical knowledge of very restricted scope, of a very particular ecological medium, both in a very profound way. Yet in the Candoshi context, the type of precise information conveyed by this procedure is very important, if not essential, for the type of data to be transmitted between interlocutors who share a very specialised and spatialised knowledge of the medium. In addition, there is practically nothing in their everyday environment that does not possess the colour with which it is naturally endowed. Consequently, there are no two identical things in different colours (or very few), contrary to what is usual in an urban context with access to a multitude of manufactured goods that are only distinguished by the hue.

Centre national de la recherche scientifique – École des hautes études en sciences sociales
Laboratoire d'anthropologie sociale (LAs), Paris
alexandre.surralles@ehess.fr

MOTS CLÉS/KEYWORDS: Candoshi – couleur/colour – World Color Survey (Wcs).
Références citées

Berlin, Brent & Paul Kay

De Vos, Connie
2011 « Kata Kolok Colour Terms and the Emergence of Lexical Signs in Rural Signing Communities », *The Senses & Society* 6 (1) : 68-76.

Eco, Umberto

Eczet, Jean-Baptiste

Everett, Daniel L.

Hill, Clair

Kay, Paul

Kay, Paul et al.
2009 *The World Color Survey*. Stanford, CSLI.

Kay, Paul & Rolf G. Kuehni
2008 « Correspondence », *JRAI (NS)* 14 (4) : 886-889.

Kuschel, Rolf & Torben Monberg

Levinson, Stephen C.

Levinson, Stephen C. & Asifa Majid

Saunders, Barbara

Senft, Gunter

Surralles, Alexandre


Tuggy, John C.
1966 *Vocabulario candoshi de Loreto*. Yarinacocha, Instituto Lingüístico de Verano (« Serie Lingüistica Peruana 2 »).

Wierzbicka, Anna

Young, Diana
2011 « Mutable Things : Colour as Material Practice in the Northwest of South Australia », *JRAI* 17 (2) : 356-376.