**summary**

Perception is a source of knowledge. Knowledge is paradigmatically justified true belief. Perceptual experiences, however, seem neither to involve belief contents nor to be based on reasons or justifications. So how can perception constitute a form of knowledge? The philosophy of perception is confronted with two familiar dilemmas (see e.g. McDowell 1994). The first bears on the contents and vehicles of perceptual experience: either perceptual experiences are kinds of beliefs and involve propositional and conceptual contents, or they are purely causal intermediaries between our sensations and our beliefs, and play no justificatory role. Neither option is attractive: the first goes against the phenomenological facts about perception, and the second leads to the view that there is no perceptual knowledge. The second dilemma concerns the objects of perceptual experiences: are they the ordinary objects of our environment or sensory objects of a specific kind (sense data)? Realist theories of perception embrace the first answer, representative theories the second. Both lead to well known difficulties, which have featured prominently in the philosophy of perception under the form of answers to the “argument of illusion”: a “disjunctivist view” according to which either our perceptual contents are veridical and bear upon real objects, or they do not bear on any object at all, as in hallucinations, and a “conjunctivist” view according to which there is a common factor both in veridical and in hallucinatory perception.

We shall at first try to abstract from these familiar issues in the philosophy of perception (although no serious account can avoid them), and shall adress directly the problem of the justification of our perceptual beliefs and of the nature of perceptual evidence. Like most contemporary writers we shall call the generic notion of justification involved *warrant*. It is usually assumed that classical foundationalism fails for perceptual beliefs, and that a coherence conception justification is equally defective. It is also agreed that the usual divisions between “internalist” conceptions of justification (which requires that one has access to one’s justifications) and “externalist” ones (which do not require access) are inadequate. Recent theories of justification have distanced themselves from both foundationalism and coherentism. On the one hand, some theories have tended to concentrate directly upon the nature of knowledge, by insisting on a condition of “safety” (if one knows that P one could not easily have been wrong). On the other hand some theorists have accepted the idea that there can be *prima facie*, defeasible justification. Our plan is to discuss the application of these approaches to perceptual knowledge.

Safety accounts are externalist in spirit and belong to the descent of reliabilist conceptions of perceptual knowledge which insist on the capacity of our perceptual processes at
discrimination (Goldman 1976). They are meant to answer the condition, which features prominently in Gettier examples, that knowledge be non accidental and non lucky true belief. Some theories use a principle of margin of error for perceptual knowledge (Williamson 2000), others insist upon an epistemic virtue condition according to which the agent must have acquired certain dispositions and skills (Sosa 2007, Greco 2007). Our specific question will be whether such accounts can account for perceptual knowledge.

There are at least three ways to understand the nature of perceptual prima facie warrant depending upon whether one takes this kind of warrant to belong to beliefs or to experiential contents. All suggest the idea that we are entitled to entertain certain perceptual contents, where the notion of entitlement is understood as weaker than the classical notion of justification. Upon a conservative conception of perceptual warrant (Wright 1994) experiential content does not give us a direct justification for our perceptual beliefs, which need to be justified independently. Upon a liberal or “dogmatist” conception (Pryor 2000) we have immediate and independent, but nevertheless defeasible warrant for our perceptual beliefs. The difference between these views appears clearly in the respective treatments of the sceptical paradox and Moore’s “proof” of an external world. There is a further notion of entitlement, which is compatible with the view that the content of perceptual experiences is non conceptual (Evans 1982, Peacocke 1992). Each notion of entitlement implies that there are certain epistemic norms which govern the relations between contents. The notion of norm here involved is not that of an imperative prescribing certain actions, but that of a distinctive kind of ought in each case. It is one of the objectives of this project to sort out these different notions of norm.

On one prominent theory of epistemic norms (Peacocke 2004), these constitute a priori relations governing different kinds of concepts, and they constitute one reason to grant the existence of a priori determinants of knowledge. But does the existence of such determinants imply that there is a priori knowledge, in the traditional sense of unrevisable knowledge independent of our experience? Although some neo-rationalist philosophers do not hesitate to draw this conclusion, it is not clear that defeasible entitlement relations entail genuine a priori knowledge. But how can the most empirical kind of knowledge, that which is based on perception, be such that it is subject to a form of a priori warrant? We shall examine these question in order to evaluate the claims of the renewal of the general philosophical program of vindicating the notion of a priori knowledge.

1. Plan

2.1. Etat de la recherche dans le domaine des travaux projetés avec mention des principales publications d'autres auteurs.

1. Situation of the issues

a. Issues in the philosophy of perception

The philosophy of perception is one of the most central topics in philosophy and one of the most important within contemporary philosophy, not only because of its intrinsic interest, but also because so many other issues seem to turn upon it. In metaphysics the problem of perception is central with respect to the classical idealism / realism issue. In the theory of knowledge it is central when one deals with the problem of our knowledge of the external world
and of scepticism. In the philosophy of mind it is crucial to have a good account of perceptual states and contents in order to ground a coherent view of the mind. Recent work on the psychology of perception has largely influenced at least the philosophical formulation of the first two kinds of problems, metaphysical and epistemological.

The present project broadly belongs to the contemporary tradition of analytic philosophy of perception, which has been very active during the last decades. The range of issues within that field is varied and large. In the first place, a lot has been written on the nature of perception as a specific kind of mental state and content, and on the physical or non physical nature of perceptual states and other “qualia” (Jackson Robinson 19XX, Chalmers 1996, Nida-Ruemelin 20XX). One of the most challenging problems in the recent years has been “the argument from illusion” in favor of the existence of sense data, which is often formulated thus:

1. When a subject experiences an illusion, he is immediately aware of something, but that thing is not a real object. Call it a “sensory datum”.
2. A subject can have the very same experience in an illusory perception case and a veridical perception case.
3. Therefore the object of experience, in the veridical case as well, is not a real object but a sensory datum.

The argument has been discussed at least since the Sceptics, and it has become the focus of many of the philosophers who have been influenced by the British Empiricists. In contemporary philosophy it is central within the debate about whether one should be a “direct realist” about perception (we perceive directly the external world object without any representational intermediaries) and “indirect realism” (or “representationalist”). The argument has been criticised by Austin (1962) and recently revived within the opposition between the “disjunctive” and the “conjunctive” theory of perception (Hinton 1973, Dokic 2004, Haddock-McPherson 2008). According to the first either perception involves a relation to real objects in the environments or it involves no such relation in hallucinations and illusions, and the contents of perception are distinct in each case. According to the second in both veridical and hallucinatory / illusory perception there is a common content.

There is a close connexion between these debates and the question whether we should adopt an internalist or an externalist account of the content of perceptual states. According to the former it is not essential, for a perceptual content, that it be related to an object of the environment of the perceiver, whereas for the latter this relation to external objects is essential. There is also a connexion between these issues and the problem of the nature of perceptual content. Some philosophers hold the view that perceptual content involves concepts or is conceptual (McDowell 1994, Brewer 1998), others hold that it is non conceptual (Evans 1982, Peacocke 1992). A related discussion deals with the nature of phenomenal contents and qualia, and with the problem whether these are representational or not (Jackson, Tye, Dretske).

b Perception and knowledge

Within this specific project, our approach will initially bracket these much discussed issues in the philosophy of perception. Our main question belongs neither to the philosophy of mind and the theory of mental content nor to ontology, but to the philosophy of knowledge and epistemology. Our starting point is the question: can perception give us knowledge, and if it does give us knowledge what is the nature of perceptual knowledge? These questions of course, are not entirely independent from the previous ones. For instance, Frank Jackson’s (19XX)
famous “knowledge argument” about the irreducibility of *qualia* asks whether someone can learn something by coming (for the first time) to contact with colours, and one of the main arguments in favour of the conceptual character of perceptual content is that perceptual contents, in order to be capable of justifying our beliefs or providing reasons for them, have to be conceptual or propositional, since only concepts and propositions can stand in the reason or justification relation (Brewer 1998). Nevertheless, we intend to prescind from such issues, and want to discuss directly question of the nature of perceptual knowledge.

We shall take our starting point from epistemology. Epistemology deals with the nature of knowledge and justification. Much of classical contemporary epistemology has dealt with this issue in a most general way, without considering the question of the sources of knowledge and belief. More recently this question has come to the front, mostly because of the influence of reliabilism: if the justification of our beliefs rests upon the causal processes which lead to them, then the nature of the sources of knowledge matter (Goldman 1986). Whether beliefs come from sensory experience, from testimony, from intuition or from no experiential source at all (if some knowledge is *a priori*), it is important, on any reliabilist or causalist account, but also from any kind of theory belonging to this family, to track these sources and to test their trustworthiness. The perceptual source is one among others, but we intend to focus on it here.

c safety accounts of perceptual knowledge

Theories of epistemic justification are usually divided into two kinds. Internalist theories presuppose that the subject has an access to its justifiers, whereas externalist theories do not require such access (Goldman 20XX). Internalist theories of the foundationalist, or of the coherentist kind are *prima facie* considered as ill-suited for perceptual justification or (as we shall prefer to say) perceptual warrant, notably because they are led to over-intellectualize perception, for instance to postulate that subjects make conscious inferences from experiences to beliefs (cf. e.g. Sosa 1992). But pure reliabilism is equally considered as problematic, in particular in the light of the “generality” problem” (Conee & Feldman 19XX): there are many ways to individuate the relevant processes and no non-arbitrary way to choose one.

Our starting point on that issues consists in two main ideas. The first one is that knowledge is factive, and that perceptual knowledge is factive – if one sees, hears, notices, etc. that \( p \), then \( p \) (Williamson 2000). The second is that knowledge is a matter of safety, in the following sense:

*If one knows that \( p \), one could not easily have been wrong.* (Sosa 2000, Greco, Williamson 2000)

How can this general modal characterisation of knoweldge, which has been initially proposed in order to deal with Gettier cases about justified beliefs, and which is related to the conception of knowledge as the exclusion of “relevant alternatives” (Dretske 1970), be applied to *perceptual knowledge*? It has been proposed that the perceptual system should have that capacity to *discriminate* its surroundings with sufficient reliability (Goldman 1976). Another, related idea is that human perception is only accurate within a *margin for error*. Our perceptual mechanisms for vision, hearing, taste, etc. are all imperfectly calibrated. In psychophysics, perceptual margins for error are known as *j.n.d.* (just noticeable difference) principles. They are described by the Fechner-Weber's law, which states that the size of a noticeable difference in stimulation
is a constant proportion of the existing stimulus (Watson, 1973). The idea was systematically exploited within Williamson theory of knowledge and vagueness (2000), along strongly externalist lines which reject the idea that perception can be “luminous” (i.e. that perceptual knowledge be such that one must know that one knows that \( p \)). Other safety views are closer to the reliabilist conception, but define safety as a function of the skills and aptitudes that of the agent (“agent reliabilism”, Sosa 2007). Other views within the broad category of “virtue epistemology” emphasize the subject’ active role in the formation of beliefs (Zagzebsky 1994, Bear 20XX). But these kind of virtue accounts encounter an obvious issue in the case of perceptual knowledge: even though some perceptual knowledge is a matter of trained skills and acquired aptitudes, most of it is not, and the subject seems to be mostly passive, while nevertheless acquiring safe knowledge.

One ancestor of safety theories of warrant, Nozick sensitivity or counterfactual account (1981) fails because it does not meet this margin of error condition (Schaffer 2002). Theories of relevant alternatives have recently been criticised for failing to give and account of safety (Pritchard 2008). In addition to current doubt about safety accounts of knowledge in general (see e.g. Comesana 2005) can there be an account of knowledge as safety which would be adequate for perceptual knowledge?

d Prima facie or immediate perceptual warrant

Safety accounts of perceptual knowledge start from the idea that perception is a secure form of knowledge. But of course perception is far from being infallible. One of the difficulties of externalist theories, and of reliabilist and safety conceptions in general, is that perceptual warrant is fallible, whereas these conceptions take their start from an infallibilist conception of knowledge (Dutant 2008). One of the main features of perceptual beliefs is that they are prima facie justified. This means that their mode of warrant is close to the foundationalist scheme – they are based upon perceptual experiences – without the foundation being fully secure. Safety accounts accept this, for they admit that in some close possible worlds a belief could have been unjustified. But one could also argue that no genuine justification could be attained in the case of perception. This intuition is partly captured by a family of views which have claimed that perceptual warrant rests upon a kind of entitlement of the subject to his beliefs. The notion is supposed to be weaker than the notion justification, but it is also supposed to play a similar role in accounting for knowledge.

There are different views of perceptual entitlement. On Burge’s (1992) conception, which has been initially proposed in connection with testimonial knowledge, entitlement is a kind of default justification. On Peacocke’s (2004) it is a feature of a certain basic kind of transition among contents – most of them being non conceptual – of which perception is a subspecies, and which is fundamentally a priori. There is a different conception of entitlement, which has been more directly proposed for perceptual beliefs, especially in the context of the discussion of Moore’s (19XX) famous “proof of an external world” (Wright 19XX, Davies 2004, Engel 2007). Upon a conservative conception of perceptual warrant (Wright 2004) experiential content does not give us a direct justification for our perceptual beliefs, which need to be justified independently. Upon a liberal or “dogmatist” conception (Pryor 2000, Silins 2005) we have immediate and independent, but nevertheless defeasible warrant for our perceptual beliefs. These options deliver a quite different answer to external world scepticism. On the former view, the conservative one, the perceptual belief that, say, I have a hand, is not warranted unless it presupposes, in general contextually, at set of beliefs and practices which do not figure in our
inferences. In this sense warrant “does not transmit” from the initial experience to the external world belief. On the latter view, the liberal one, there is immediate justification or warrant of my belief that I have a hand, and its “transmits” to the belief that there is an external world.

The entitlement notion of perceptual warrant raises three major issues. The first one is: to what extent is it compatible with an externalist conception of warrant, such as the safety account? It is not clear that it is, although the entitled subject, in perceptual cases, is not in general able to have access to his states. Burge himself proposed his conception in an externalist setting, and Peacocke follows him. Nevertheless entitlement has a strong internalist ring, for how could one have an immediate perceptual justification for a belief without having access to it? The second issue is this: to what extent is the notion of entitlement a priori? The idea is that certain transitions are such that, independently of experience, and constitutively, they produced entitled beliefs. That does not mean that perceptual knowledge is a priori, but that in order for there to be perceptual knowledge, certain concepts and transitions have to be warranted independently of experience. This is clearly a weaker notion of the a priori that the classical Kantian notion, and it is also quite different from the linguistic conception of the a priori made familiar by the logical positivists and their successors. The third problem is: to what extent can perceptual knowledge be based on evidence? Evidence is the basic epistemological relation. Some externalist views, in particular Williamson’s (2000) identify evidence and knowledge. But evidence is often construed as a relation between propositions, and as an internalist relation (Conee and Feldman 2000). Moreover, the friends of entitlement insist that this relation is not an evidential one of confirmation. So how, on such views, can perceptual knowledge be based on some kind of evidence?

One of our problems will be to see whether these two notions of perceptual warrant, the safety one and the entitlement one, can be made compatible. Doubts have been raised about the possibility of a “compatibilist” epistemology, and about the possibility of combining what Ernest Sosa calls “animal knowledge” (basic dispositions of the knower) and “reflective knowledge” (the knowers access to his or her own states) (Berneker 20XX). But we would like to investigate systematically to what extent that kind of epistemological view can be pursued, since the case of perception seems to fall so clearly between the two poles.

In addition to setting ourselves this basic task of understanding the nature of perceptual warrant, we would like in this project to explore two further issues.

e. Other kinds of entitlement: testimony

As we tried to make clear above, the very general goal of this project is to understand what grounds the broadly accepted trust we have in our perceptual beliefs. That is to say, to explain what makes perceptual beliefs specific regarding the way they are warranted. The importance of this topic emerges clearly once we notice that perceptual beliefs support most part of our other, more complex, beliefs without being themselves supported. Perception is a basic source of knowledge in the sense that it allows us to know a number of other things without apparently requiring the contribution of any more fundamental source itself. Now it is crucial to notice that the words of others, testimonies, seem to qualify as a basic source of knowledge as well (Adler 1994, Coady 1992, Engel 2006, Lackey 1996). Arriving in a city, I’ve never visited before, if someone told me that the train station is located directly behind the cathedral, this seems to be sufficient for me to get some knowledge about the location of the train station. If it is true that the train station is really situated there, it seems that I have knowledge of this fact as soon as someone gives me this correct information. I do not need to check by myself whether this really is the case. A very important number of the things we know
are exclusively supported by the testimony of others. I know that Swiss population counts roughly 7'500'000 people through the testimony of a number of people I trust. Most part of our scientific knowledge relies exclusively on the testimony of others. Denying that testimony is sufficient to provide warrant would amount to a dramatic and very counterintuitive shrink of what we consider as being known. (Hardwig 1991)

In every of these cases, the part played by the testimony of someone else is analogous to the part played by perception in the sense that both sources seem to provide warrant to the beliefs they provide without requiring themselves more basic support. In most case, it seems that I'm allowed to believe what the words of others teach as I'm in most cases allowed to believe the information provided by my senses. Therefore, it is not surprising but nevertheless very enlightening, that some philosophers account for testimonial warrant in the terms used by others to explain perceptual warrant: in terms of entitlement (Burge 1993/1997), safety (Lackey 2007), epistemic virtue (Sosa 1992, 2007, Greco, Zagsebski 1995)

Taking seriously the analogy between both sources of knowledge, our first goal will be to use the testimony debate as a guide and a source of inspiration to help us taking a stance in the debate opposing the various ways of accounting for the warrant of perceptual beliefs:

(a) entitlement’s account;  
(b) safety’s account;  
(c) epistemic virtue’ account;

Regarding the first question, one of our main achievements will consist in stating if and at which cost the entitlement to believe our senses can be modelled as the entitlement to believe the words of others.

An immediate difficulty for such a suggestion lies in the mere fact that our senses belong to ourselves in such a way that we are led to consider them as more trustworthy. On the other side, our senses are also able to lie in such a way which is very often less detectible than when others lie. And this could be the case, precisely because our senses are ours. This casts doubts on the hypothesis according to which we are prima facie entitled to believe our senses as we are prima facie entitled to believe the words of others. (Burge 1993/1997)

Another worry appears once one noticed that most of the arguments devoted to defend the existence of a prima facie entitlement to believe the testimony of others cannot be transferred in the perceptual domain. The appeal to the intelligibility of the content of testimony is, for instance, hardly transferable in the domain of perception (Burge 1993). But this, crucially, deserves to be considered.

It is doubtful that the virtues’ way of accounting for the warrant of testimonial belief provides a better model. The virtues’ account focuses on the importance of developing moderate credulity regarding the words of others in such a way that one is allow to believe the words of others when this is appropriate. It does not seem that we, analogously, develop moderate credulity regarding our senses. As we just said, our senses seems immediately trustworthy in such a way that it is hard to consider that our only way to acquire warranted perceptual beliefs would be through the training, improvement of our perceptual abilities.

Finally, it is also important to say that these reflections will also shed light on the two other main problems we plan to tackle in this project.
1. They will help us making clear in which specific sense our perceptual beliefs could possibly qualify as being a priori.
2. To settle the question of which of the externalist, internalist position we should prefer regarding the justification of our perceptual beliefs.

Of course, describing testimonial beliefs as being a priori sounds as strange as ascribing a prioricity to perceptual beliefs. There is a lot to learn about the way philosophers defend the supposed a prioricity of testimonial beliefs in order to understand the exact range of the predicate “a priori” when it concerns beliefs acquired through perception. The consideration of the warrant of perceptual beliefs in the light of the various ways to account for the warrant of testimonial knowledge is supposed to provide direct result regarding the debate confronting externalism to internalism vis-à-vis the justification of beliefs generally. This should show the insolvability of such a debate by enlightening the fact that every conception of justification has some pertinence where the other fails. More importantly, this is the case for analogous reasons in both cases, for perceptual and testimonial beliefs. Even if modest, this result would constitute a further step toward a renewed epistemology the characteristic of which is, at least partly, to get rid of the conception of the externalism/internalism as a disagreement to settle. (Bonjour 1996, Sosa 2003)

f. The a priori

A number of writers about the relations perceptual entitlement and prima facie justification have held the view that these relations are a priori (Peacocke 1992, 1999, 2000, Burge 1993, 1996). Some philosophers, in particular Peacocke, have defended on this basis a general “neo-rationalist” project based on the notion of a priori knowledge (Peacocke 2004). The project of a revival of the idea of a priori knowledge has encountered, expectedly, some resistance within analytic philosophy. On the one hand the logical positivists had reduced the notion of a priori knowledge to a purely conventional, and mostly linguistic form of knowledge. On the other hand Quine’s critique of the analytic/synthetic distinction seemed for a least three decades to have sealed the fate of the idea that there could be knowledge independent from experience, and the naturalistic outlook which has dominated philosophy and cognitive science since then has reinforced an hostility towards this notion (which is, for instance, well represented within the project of “experimental” philosophy defended by Stephen Stich (2004) and his associates.

Given the complex history of the notion of a priori knowledge in contemporary philosophy, any renewal of this notion has to make clear what is at stake. Aprioricity cannot, in the first place be understood in the Kantian sense, as based on a specific theory of intuition, and on a notion of synthetic a priori judgement, or in the Carnapian sense of linguistic conventions, but it has to validate intuitively the idea that some pieces of knowledge an be a priori. On the view defended by Peacocke (1992, 2004) the a priori is a feature of the “possession conditions of our concepts”: there are certain general principles or norms which hold for any kind of concept, and which belong to the sense of these concepts. Among those are perceptual concepts, and entitlement relations and transitions belong to the domain of a priori conditions on the applications of concepts. This kind of position has to be located within the space of contemporary discussion of what has been called “modal epistemology” (Gendler and Hawthorne 2002, Chauvier 2008): does conceivable entail possibility? can there be an epistemic insight into modal knowledge of possibility and necessity? One of the lines of research to be investigated is the following: do perceptual judgements and their exercise rest
upon the existence of general epistemic norms, and if so, what is the sense of normativity which is a stake?

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