

Interview

Anti-Individualism and Perceptual Representation

Interview With Tyler Burge

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Abstract

Tyler Burge's anti-individualism – the view that individuating many of a creature's mental kinds is necessarily dependent on relations that the creature bears to the physical, or in some cases social, environment – backs his theory of perceptual representation, i.e. perceptual anti-individualism. Perceptual anti-individualism articulates a framework that, according to Burge, perceptual psychology assumed without articulation. In this interview, Burge talks about the main tenets and underpinnings of perceptual anti-individualism in relation to classic representational theories of perceptual experience, reductive theories of mental content, theories of phenomenal consciousness, and other associated topics.

Keywords: perceptual representation, anti-individualism, psychological explanation, philosophical psychology, psychology of perception

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Carlos Muñoz-Suárez: Professor Burge, thanks for accepting the invitation to be interviewed. Opening up the subject, as far as I've seen, one of the most relevant sectors of your theoretical work about the mind is what you have called *anti-individualism*. Could you introduce the main tenets of this view?

Tyler Burge: A lot of what I have written on mind is informed by anti-individualism. But much of my work is not specifically about anti-individualism. Still, anti-individualism is the general doctrine for which I am best known. I hope that my work on perceptual representation will come to have co-equal status with the work on anti-individualism, in transforming the way philosophy thinks about the relevant subject matter.

Anti-individualism is the view that the natures of most representational mental (or psychological) states depend constitutively on relations to a wider environment (cf. Burge, 1979, 1982, 2007a; 2010, ch. 3).

Representational mental states are those – like beliefs, intentions, desires, hopes, perceptions, memories, imaginings, and so on – that function to be about something and that are accurate or inaccurate. Sensations like pains and tickles are not, in themselves, accurate or inaccurate.

Depending constitutively is depending for *what it is to be* a given mental state. The idea is that mental states like a belief that dolphins are mammals depend on relations that the individual bears to a wider environment to be the kinds of states that they are.

There are various forms of relations to a wider environment that help make mental states the kinds of mental states that they are. Many are causal relations to the physical environment – either in the individual's learning history or in the evolution of representational systems that the individual inherits. These causal relations to the physical environment underlie the natures of perceptual states and perceptual beliefs. Hence they often figure in the natures of other cognitive states, because so much of our mental life depends on perception.

Some relations to the wider environment are social-communicational relations to others whom we rely on for connection to the environment. These relations underlie some of our understanding of concepts – especially concepts expressed through language.

Some relations to the wider environment are relations of veridicality or successful representation of a subject matter. These relations are dominant in determining the natures of our beliefs in logic and mathematics.

Anti-individualism opposes views that maintain that the mind is self-contained – that representational states are what they are independently of relations to an environment, and either match the environment or not, even though the terms of the match are completely independent of one another. Anti-individualism also opposes views that maintain that the nature of the mind is what it is purely by virtue of its relation to the brain. The identities of mental states depend on the identities of types of things in the environment, with which the individual interacts, beyond the individual's mind and brain.

Carlos Muñoz-Suárez: One of the dominant traditional views about perception is what might be called classic representationalism. According to this old-fashioned view, perception is a relation between subjects and things (representations) inhabiting their own minds. So, for instance, to perceive the blue of the sky consists, broadly speaking, in being aware of a representation of a color shade, presented within one's mind. According to this view, the subject matter of a visual perception is a mental representation of a color shade. In this sense, classic representationalism is an internalist view, i.e., a view according to which perception is grounded in an inner sensory awareness relation. This internalist representationalism about perception was part of the background, on the one hand, for important physiological and psychological theories of perception in the 19th century (e.g., [Fechner, 1860](#); [Mach, 1886](#); [Weber, 1851](#)) and, on the other hand, for one of the most seminal philosophical theories of perception in the early 20th century (e.g., [Broad, 1925](#); [Russell, 1912](#), ch. 1). Which is the main turn that your *anti-individualism* imposes on this classical view about perception?



Carlos Muñoz-Suárez (left), Tyler Burge (right)

Tyler Burge is a Professor of Philosophy at University of California, Los Angeles. Since the 1970's decade, Tyler Burge has published influential papers in Epistemology, Philosophical Psychology, Philosophy of Mind, Philosophy of Language and Logic and History of Philosophy. His published books include *Truth, Thought, Reason: Essays on Frege* (2005), *Foundations of Mind* (2007), *Origins of Objectivity* (2010) and *Cognition Through Understanding: Self-Knowledge, Interlocution, Reasoning, Reflection* (2013). Martin Hahn and Bjørn Ramberg have edited a festschrift mainly devoted to Tyler Burge's anti-individualism.

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Tyler Burge: Classic representationalism derives from empiricist views (of Locke, Berkeley, and Hume) in the early modern period. It influenced, as you say, early work in psychology. And it inspired the 20th century philosophical theories of perception by Russell, Moore, and Broad, that took perception to be fundamentally a relation to sense data. I think that this view is now thoroughly discredited. Its fall began well before I came on the scene. In philosophy it was criticized successfully by Austin, Strawson, and others in the 1950s. In perceptual psychology it has come to be largely ignored, because of the success of explanations that take perception to be fundamentally a matter of representing the physical world, not a matter of relation to non-physical *qualia*. Anti-individualism is certainly in accord with the direction of modern science of perception. It provides a framework that is presupposed, I think, by modern perceptual psychology. The framework shows how the representational content of perceptual states derives partly from the physical environment that they function to represent. The attempt to understand perception by arm-chair, phenomenological methods drove early philosophical developments of classic representationalism. It is now known that perception cannot be understood from the armchair, even though many philosophical theories – even ones not committed to classic representationalism – persist in trying. Too much of what goes on in perception occurs unconsciously, and is much too fast for introspective access. A central, further problem with classic representationalism is that it underplayed the function of perception: to provide perceivers with detailed information about the physical world.

Carlos Muñoz-Suárez: One of the most heated contemporary debatesⁱ is based on clarifying the necessary and/or sufficient conditions of perceptual representations (cf. Dretske, 1999; Fodor, 1990; Millikan, 1984; Papineau, 1993; Tye, 1992). In searching for those conditions, researchers have tried to explain how perceptual representations take place within the natural order (i.e. within the actual world as described by some empirical sciences, for instance: physics, cognitive psychology, evolutionary biology, and neuroscience).

According to your perceptual anti-individualism the nature of *all* perceptual states *depends constitutively* on relations – including non-representational causal relations – between individuals in those states and features of the physical environment (including sometimes the individual's own body). Could you tell us how your perceptual anti-individualism explains that perceptual representation takes place within the natural order?

Tyler Burge: The attempts to “naturalize” representation that you refer to had the good effect of trying to situate our understanding of perception within a broader context of scientific understanding. But the attempts were driven, I think, by too narrow a view of science, by a completely unsupported philosophical ideology, and by a lack of real understanding of the relevant science – perceptual psychology. None of the participants in this movement whom you cite had (or has) a deep grip on what is going on in that science. No detailed discussion of the science appears in any of these philosophers' works in connection with their “naturalizing” projects.

The narrow view of science consisted in assuming that all science had to confine itself to the theoretical terms used in the natural sciences (physics, chemistry, biology), or at least explain how other terms are place-holders

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for the “real” explanations in terms of the natural sciences. The philosophical ideology consisted in the dogma that psychological terms like ‘representation’ or ‘perception’ were not fit in themselves to be scientific terms, and had to be explained – or “naturalized” – in terms that were already being used in the natural sciences. These philosophers took from Quine the idea that distinctively psychological representational vocabulary was *prima facie* dirty or suspect, and in need of some philosophical cleansing or philosophical vindication.

The narrow view of science and the “naturalistic” philosophical dogma have been overturned by the development of perceptual psychology – pre-eminently the development of vision science. This development accelerated and became impressively rigorous in the 1970s. The acceleration was driven by the introduction of computers into the study of perception. It was also driven by the development of an agreed upon and well-articulated scientific methodology. The methodology situated psychological explanation in the context of closely associated – but different – explanations of the neural activity that underlies perception. Perceptual psychology systematically uses representations or representational content in its most basic scientific explanations. The representations or representational content constitute conditions for accuracy of perception. They entail a capability of the relevant perceptual states to enter into semantical relations to perceived particulars and to properties and relations that are attributed to those particulars. The science is more rigorous and more explanatorily powerful than many theories in biology and neuroscience, which do not use distinctively psychological, representational terms in their explanations. There is no reason to believe that the distinctively psychological, representational terms that are used in perceptual psychology need explanation or vindication, by philosophers, in the terms of the natural sciences in order to be genuinely scientific. Psychological explanations that use these distinctively psychological, representational terms show all the signs of rigorous, successful scientific explanations. The explanations explain how we accurately perceive the world (when we do) and under what conditions we fall into illusions. Psychology does not need to be propped up, or made scientifically respectable, by the natural sciences – much less by philosophy.

My work differs from the “naturalizing” programs from the 1980s and 1990s that you cite. My view is that perceptual psychology is “naturalistic” not in being explicable in the terms of the natural sciences (physics, chemistry, biology), but in not invoking miracles and in adhering to rigorous scientific methodology. I think that *representational content* is a scientific notion that earns its place in science through its role in successful scientific explanation. So I believe that my work is in accord with the actual practice of the science of perceptual psychology, whereas I believe that the work of Millikan, Dretske, and Fodor – insofar as that work attempted to explain psychology in functionalist or informational terms or in terms from the natural sciences – is not in accord with known science.

My work relates perceptual explanation to explanation in the natural sciences by pointing out that perceptual psychology is carried out in a framework that assumes that at least some perceptual states figure in non-representational, biological explanations of action that is (earlier in evolution) pre-representational (Burge, 2010, chs. 3 and 8). I have in mind generic types of action such as eating, mating, navigating, and so on. The idea is that the kinds of physical properties and relations in the environment that figure in pre-representational, ethological explanations of such animal activities are *prima facie* the sorts of properties and relations that will figure in determining perceptual content. This is a very generic constraint on perception. It tends to rule out, as perceptual *representata*, categories of entities (such as sense data, proximal stimulations, and odd philosophically contrived properties, such as aggregates of undetached rabbit parts) that did not figure so prominently in pre-representational animal activity. On the other hand, this generic constraint does not generate any specific perceptual representational contents. Thus one cannot assume that if a property figures in biological/ethological explanations that it will be indicated by a perceptual content. Moreover, the constraint does not by itself rule out specific candidates for per-

ceptual *representata*. It only rules out, *prima facie*, whole categories of candidate *representata*, if alternative categories played more central roles in pre-representational biological explanations.

Specific representational contents are determined by further considerations. For example, the *representata* of perceptual contents must be discriminable by the perceiver. And the relevant discriminations must be embedded in perceptual capacities, basically perceptual constancies. Thus one cannot rule out a specific *representatum* because it does not figure in pre-representational action. One must both include and rule out candidates for perceptual *representata* and representational contents by checking for perceptual discriminability. These are tests for perceptual content that are actually used by the science. Still, the fact that perceptual psychology tries to accord with pre-representational explanations in zoology and ethology plays an important role in the overall shape of the science.

Perceptual anti-individualism explains how perception is “embedded in nature” by showing that this general connection between properties that animals interact with *pre-representationally* figures in the very nature of perceptual representational contents – which are themselves perceptual kinds. That is, those physical entities that animals can discriminate, and that they tended to interact with pre-representationally, mark the very nature of perceptual contents and perceptual kinds. Perceptual kinds are ultimately molded, and determined to be what they are, by physical kinds in nature – the physical kinds that the individuals interact with and discriminate. There are further factors that determine specific perceptual contents. But these are the basic ones. Anti-individualism shows how deeply dependent psychological kinds are on physical nature. But it respects the distinctiveness of psychological kinds. They are not themselves kinds that are specified in the natural sciences.

Carlos Muñoz-Suárez: You have advocated in favor of the idea that representational explanations are necessary to understand what a psychological state is. In this way, you have suggested that we will get to comprehend the mind if we structure philosophical theories on the basis of a science of mental representation, i.e., on the basis of perceptual psychology. Could you present your main reasons to reject the reduction of psychological representational explanations to neurobiological functional descriptions?

Tyler Burge: Science is always open, in principle, to scientific reductions. But none of the reductions that have been floated by philosophers provide even close to the explanatory specificity or explanatory power of the explanations in representational terms that actually occur in the science. Functional explanations and informational explanations are too unspecific to capture the explanations of the formations of states that can be accurate or inaccurate. Such explanations are fundamental to perceptual psychology. Explanations in terms of biological functions are fundamentally explanations of practical capacities – whereas perceptual states are never themselves exercises of a merely practical capacity. Their representational job is to get something right, not to get something done. Of course, the perceptual states can and do *help* in getting things done. Only packages of perceptual states and actional or reactional states are practical capacities: capacities for fitness. Neural explanations by themselves are inherently individualistic. They show nothing about how neural activity is related to the wider environment – which is what perceptual psychology is all about. A combination of neural and informational explanation is again too unspecific to reduce explanations of accurate and inaccurate perception (cf. [Burge, 2010](#), ch. 8).

Carlos Muñoz-Suárez:... what do you take to be your main input to perceptual psychology?

Tyler Burge: I think that perceptual anti-individualism articulates a framework that perceptual psychology assumed without articulation. I believe that I have also provided the clearest, most accurate explanation of the distinction

between sensing and perceiving, a standard distinction in psychology. I have provided a detailed constitutive explication of what perception is (cf. Burge, 2010, ch. 9). I am working on an account of the main forms of perceptual content – something analogous to detailed explanations of the basic syntactical and semantical forms in language use (cf. Burge 2010, chs. 10 and 11; 2011a, 2011b).

Carlos Muñoz-Suárez: If I have understood correctly, perceptual anti-individualism is a view specifying the constitutive conditions that must be fulfilled by any psychological state to be perceptual. Moreover, we can distinguish between theories about the nature of perceptual *content* (e.g., Dretske, 1999; Fodor, 1990; Tye, 2000) and theories about the nature of perceptual *states*. The former theories have tried to account for crucial cases. For instance, the case supporting the Inverted Spectrum Hypothesis. This case includes two individuals functionally identicalⁱⁱ: one of them has a perceptual representation as of red while the other has a perceptual representation as of green and, *ex hypothesi*, both individuals are in visual sensory contact with the same environmental item.

Do you think that perceptual anti-individualism could help us to clarify this case? In particular, would you agree that perceptual anti-individualism might help us either to reject or support the Inverted Spectrum Hypothesis?

Tyler Burge: What you say about perceptual anti-individualism is right, except that it states *some* constitutive conditions for perception not “the” (or all) conditions. I am not sure that I understand your distinction between accounting for the nature of perceptual content and accounting for the nature of perceptual states. I think perceptual anti-individualism concerns both, but it is fundamentally about the nature of perceptual states. Contents really just are kinds of states or events.

I think that if two individuals (and their species’ ancestors) bear the same relations to their environments, then one cannot perceive the same things as red that the other perceives as green. What one perceives as depends on the pattern of interactions that one has to environmental properties. I think that if both individuals (and their ancestors) normally went into parallel states when they interacted with red things, then they will both perceive those things as red. So that form of the inverted spectrum seems to me impossible. On the other hand, if the two individuals’ underlying physical constitutions were relevantly different, I think that one individual could perceive something as red while having the same qualitative character of the perception (of something as red) that the other individual had in perceiving something as green – and vice versa. In this case, both would perceive the “something” as red. But they would do so in different ways. In other words, the ways in which the two individuals perceive something as red could differ qualitatively. Similarly, the ways in which they perceive something as green could differ qualitatively. What color one perceives something as is not determined by what the what-it-is-like, qualitative aspect of the experience. It is determined by patterns of causal relations to the environment. But that what-it-is-like, qualitative aspect can affect the way one perceives something as (say) red. You and I could both perceive a fire engine as red. It would look red to both of us. But the look of red – the qualitative nature of our experiences – could differ. What qualitative natures one has depends mainly on underlying brain states (though we certainly do not understand how to explain this dependency relation). Perception-as depends mainly on patterns of causal relations to the environment (cf. Burge 2007b, 2010, ch. 9).

Carlos Muñoz-Suárez: Broadly speaking, one could think that an *individualist* view about the *phenomenal content* of perceptual experiences (e.g., Chalmers, 1996, 2006; Jackson, 1982; Shoemaker, 1994; Strawson, 1994) is compatible with your anti-individualist theory of the nature of perceptual states. According to this individualism, the phenomenal or experiential content of perceptual experiences is wholly determined by the individual’s non-

representational, non-functional features. In other words, the phenomenal content of perceptual experiences is not – essentially – of a representational or functional kind.

One could accept the causal and representational dependency of perceptual *states* on relations between individuals and their physical environments – as it is claimed by your perceptual anti-individualism – but, even so, one could also reject this dependency as determining the phenomenal content of those states. In this vein, one could claim that *some* constituents of contents of perceptual states (namely, the phenomenal ones) are wholly individuated in virtue of the individual's non-representational, nonfunctional features.

What do you think the fundamental tenets that a theory about perceptual *phenomenal content* must include in order to be compatible with your anti-individualist theory about the nature of perceptual states?

Tyler Burge: I think it better not to think of the purely qualitative aspects of the mind as types of content. I think that in themselves, they don't represent anything. And speaking of them as content just invites confusion. Yes, I accept an individualist view of phenomenal qualities, considered in themselves. I think that the nature of such qualities depends on the underlying brain states, not on their relations to a wider environment.

I think that most phenomenal qualities are, however, co-opted by representational states – for example, perceptual states. Then they become aspects of modes of presentation – of representational contents. They are like in-themselves meaningless sounds that become meaningful through being used to represent something. In themselves, I think they represent nothing (cf. Burge, 1997, 2007b). I do not know what the fundamental tenets of such a view of phenomenal qualities are. I hold the view. I certainly believe that it is, already as stated, compatible with anti-individualism!

Looking at the huge body of philosophical and scientific work on phenomenal qualities over the last few decades, I do not see a lot of progress. I think that our understanding of phenomenal qualities is vastly behind our understanding of representational states and representational contents. I conjecture that it will be a long time before genuine philosophical insight into the qualitative aspects of the mind will catch up with philosophical insight into the representational aspects. This prospect does not disturb me, however. The representational aspects of mind are overwhelmingly the dominant aspects. They form the primary ground for psychology, and hence, I think, for philosophy of psychology. Philosophy of mind is a larger topic. But it too has plenty to do in understanding representational aspects of mind.

Carlos Muñoz-Suárez: Professor Burge, many thanks for the interview!

Tyler Burge: Thank you for your interest in my work.

Notes

- i) Mainly woven in the 80s and 90s of the 20th century.
- ii) Broadly speaking, identical in terms of the causal relations between their environments and their mental architectures and behavior.

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Competing Interests

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