Perceptual Capacities, Success, and Content

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Capacities are powerful predictive, explanatory tools for theorizing about subjects, minds, and performance. According to *The Unity of Perception*, capacities anchor a systematic, far-reaching account of perception and perceptual consciousness.[1] Perceiving, Schellenberg argues, constitutively is a matter of employing perceptual capacities in a sensory mode. Doing so entails being in a mental state with representational content and phenomenal character. This yields an impressive range of epistemic and normatively significant consequences.

According to Schellenberg's *capacitism*, perceiving involves singling out and discriminating mind-independent particulars. Perceptual capacities thus include being capable of proto-referentially singling out specific objects, events, and property instances and being capable of discriminating distinct particulars. Perceptual capacities are a suite of such "discriminatory, selective capacities" (31).

Perceiving requires being differentially sensitive to the presence of things and features in the environment. Being differentially sensitive requires being able to detect or to register something's presence. That is not enough, since one could be affected in the same way by a wide variety of things. To be differentially sensitive to a feature, such as a pitch, one also needs to be capable of responding differently to it from how one responds to other features, such as distinct pitches, or to colors, odors, and objects.

These capacities are exercised, or employed, through sensory and perceptual processes. They enable selection, discrimination, demonstration, recognition, thought, and action. And their exercise need not implicate extraperceptual cognition. In particular, extraperceptual cognition is not required to fix the targets of such differential sensitivity.

Thus, perceiving involves exercising capacities to detect and differentiate. In Schellenberg's preferred terminology, perceiving involves employing capacities to single out and discriminate.

This fits with perceptual psychophysics. One key task in that enterprise is to investigate relatively basic capacities, such as the capacity to respond sensitively to the presence of a stimulus above a certain threshold, or the capacity to respond in detectably different ways to stimuli that differ by some measure. There is no debate that perception itself, rather than just extraperceptual cognition, involves such capacities. Establishing that and controlling for extraperceptual confounds are explicit aims that structure the empirical sciences of perception.

This approach does raise difficult questions about the lower and upper bounds of perceptual capacities. Among all the capacities a subject harbors, how should we identify the intermediate slice that corresponds to perceptual capacities? On one hand, perceptual capacities reach beyond wholly subpersonal and merely sensory capacities. They must be attributable to subjects and suited to ground epistemic and normative consequences. On the other hand, the limits of psychological capacities belonging to perception should be circumscribed as distinct from extraperceptual attention, categorization, judgment, and inference. Perceptual capacities must be properly perceptual and grounded in perceptual psychophysics.

Set aside these important, challenging questions for now, to address a more foundational question about the nature of perceptual capacities.

It is natural to think that acknowledging perception involves employing capacities is relatively neutral among differing theories of perceptual consciousness, whether relationalist, representationalist, or qualia-based.

However, according to Schellenberg, employing perceptual capacities entails being in a mental state with representational content. Contents are not merely associated with perceptual episodes (107). Instead, perceiving is constitutively a matter of representing mind-independent particulars (103). Moreover, being in a mental state with a given representational content is a "metaphysically substantial common element" in perception, illusion, and hallucination (3).

So, characterizing perception in terms of perceptual capacities commits one to constitutive representational contents. "Any account that acknowledges the role of discriminatory, selective capacities in perception must acknowledge that perceptual states have representational content" (6).

Schellenberg's argument is forceful, and its conclusion seems difficult to avoid. It begins by observing that a capacity is characterized by what it serves to do. And a perceptual capacity functions to single out or to discriminate mind-independent particulars.

Accordingly, there are conditions that must be met if a subject successfully employs a capacity. These include doing what that capacity serves to do, fulfilling its function. One successfully employs the capacity to single out a particular only if one singles it out.

However, according to Schellenberg, capacities are *fallible* (43–5). They also can be employed unsuccessfully. You could employ the capacity to single out an item or feature even if no such particular is present.

So, *employing a perceptual capacity* itself has success conditions, which may be met or unmet. For Schellenberg, employing perceptual capacities suffices for being in a mental state that is satisfied or accurate only if those conditions are met. Thus, employing perceptual capacities suffices for being in a mental state with representational content.

A key piece to this argument is the claim that perceptual ca-

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[1]Schellenberg, S. (2018). *The Unity of Perception*. Oxford University Press.

pacities have *unsuccessful employments*. That is, perceptual capacities, such as the capacity to single out a particular or to discriminate distinct particulars, can be employed successfully or unsuccessfully. This is the claim I want to challenge.

Capacities, like dispositions, are individuated by what they are capacities for, or to do—by the outcome of the capacity's successful exercise. Success requires that outcome to occur; it requires doing so. Successfully employing the capacity to ϕ requires doing ϕ. Doing ϕ is a necessary condition for success that stems from the nature of that capacity.

Capacities, like dispositions, typically also are characterized in terms of further background conditions in which they are employed, or manifested. I can see, but not in the dark or while asleep. A match needs striking and oxygen to light.

One can possess a capacity to ϕ and still fail to ϕ, if background or success conditions are unmet. (So, I do not accept the Megarian view that one possesses a capacity only when employing it (41–2).) This holds even if you try or attempt to ϕ. If the success conditions associated with that capacity are not met, you are unsuccessful.

Something like this happens in cases of illusion and hallucination. You might have the capacity to detect and differentiate α. However, if α is not present, you fail to detect and differentiate α, even if it is not your fault. That is, even if you are in good working order, you do your part, and you would have detected and differentiated α had it been present.

According to Schellenberg, in such cases, you are not just unsuccessful. You also employ the relevant capacity. You employ it but fail. You employ it unsuccessfully.

Now, trying or attempting to ϕ does not, in general, suffice to employ the capacity to ϕ. A subject who tries or attempts might lack the relevant capacity, or simply not manage to employ it on that occasion.

Schellenberg thus is committed to there being employment conditions, E, associated with a perceptual capacity, that are distinct from the success conditions, S, associated with that capacity, and whose satisfaction does not entail success. That is because a perceptual capacity can be employed where the success conditions associated with that capacity are not met.

For instance, concerning C_α, the capacity to single out α, satisfying the conditions, E, in which C_α is employed must not entail meeting its success conditions, S, since E includes cases in which α is not present, and S does not.

However, it is not obvious that perceptual capacities have employment conditions that do not require satisfying their associated success conditions.

In a simple account, a subject employs the capacity to ϕ only if the subject does ϕ, or ϕ takes place. This identifies a capacity's employment conditions with its success conditions. By analogy, the disposition to ϕ is manifested or exhibited only if ϕ occurs. For example, a match manifests its flammability only if it bursts into flames.

This simple account is especially plausible for capacities that include success notions. Suppose I have the capacity to complete a race. Can I exercise my capacity to finish and not finish? That is unclear. If I do not finish, saying that I exercised my capacity is misleading.

Lots of capacities characterized in terms of actions work this way. Suppose I have the capacity to kick the ball, but fail. Have I exercised my capacity to kick the ball? Not obviously, even if I try or attempt it. Or, have I employed my capacity to hit the archery target when I try and fail in poor conditions? Not evidently, even if the reason I do not succeed is not my fault, and I would have hit it if not for an odd factor, like a gust of wind that blows down the target after I shoot.

Perceptual capacities share this character. Can I employ the capacity to single out and discriminate α while failing to single out or discriminate α, if only because α is not present? Plausibly, no.

In a closely related discussion, A. Millar claims perceptual recognitional capacities are success notions.[2] You cannot deploy or exhibit the capacity to recognize a cardinal if no cardinal is present, even if the experience is one you could not tell apart from one in which a cardinal is present. In that case, you simply fail to recognize a cardinal.

This is plausible because to recognize is an achievement or accomplishment, a performance requiring success. And it is not clear that one can *employ* or *exemplify* the capacity to succeed or to accomplish something and still fail (and so fail to manifest or exhibit a corresponding disposition).

So, it is not evident that a capacity to ϕ must be capable of being exercised or employed unsuccessfully. It is not clearly in the nature of capacities and their employment that it is possible to employ a capacity unsuccessfully.

Some cases in which success conditions are unmet are not substantive, relevant tests for whether or not a subject possesses a given capacity. Being in the dark is a poor test of whether in general you can see. Such cases, in which a subject fails to do ϕ because background conditions do not obtain (conditions are not good), are ones in which the antecedent of a conditional (if C, ϕ) by which we assess whether an individual possesses and employs a given capacity is unmet. The corresponding counterfactual tests possession, but need not indicate employment. Its truth does not guarantee employment conditions actually are met.

For perceptual capacities, the presence of a target may be such a background condition. If so, it is no real test for whether a subject employs the capacity to single out α if α is not there. The relevant successes and failures are ones in which that particular is present. So, background conditions are met, but for the subject's contribution or performance.

After all, the relevant perceptual capacities concern singling out and discriminating. These plausibly are success notions.

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[2]Millar, A. (2008). Perceptual-recognitional abilities and perceptual knowledge. In A. Haddock and F. Macpherson (eds.). *Disjunctivism: Perception, Action, Knowledge*, 330–47. Oxford University Press.

One does not single out α, or discriminate α from β, when one fails to do so because α is not present. Accordingly, it is not clear one can employ the capacity to single out α, or to discriminate α from β, when α is not present.

If illusions and hallucinations do not involve unsuccessful employments of perceptual capacities, they need not involve mental states sharing success conditions with perceptions. If so, illusion and hallucination need not share representational content with perception. So, embracing perceptual capacities itself does not entail representational content.

Now, suppose it is possible to employ a perceptual capacity unsuccessfully. For instance, C_α can be employed without α. If so, there are employment conditions, E, such that a subject employs C_α only if E obtains.

A natural idea is that E includes each particular situation, e, that is just like some particular situation, s, that satisfies S, except for the presence of α. So, we can convert each $e \in E$ into some $s \in S$ just by supplying α.

While this describes employment conditions that allow unsuccessful employments of C_α, it does not explain why satisfying E does not entail satisfying S (why $E \nRightarrow S$). It does not illuminate why cases in which α is absent are among those in which C_α is employed.

According to the alternative, in which satisfying E entails satisfying S (so, $E \Rightarrow S$), cases where α is absent are not in every respect just like cases of success except for the presence of α. The subject's activity in *failing* to single out α is not of the same relevant kind as what occurs when the subject singles out α. Thus, the hallucinating subject fails to single out α, and also fails (though blamelessly) to employ the capacity to single out α. For example, the subject of a Müller-Lyer illusion fails occurrently to detect inequality, but also fails to employ the capacity to detect inequality, since the employment conditions for the capacity to ϕ are a subset of those in which ϕ takes place.

What we would like is an independent reason to hold that such a subject in the relevant respect is doing the same thing, where what the subject is doing, even while failing to ϕ, suffices for employing the capacity to ϕ.

Schellenberg offers an account. According to this account, perceptual capacities are individuated by the particulars they *function* to single out or to discriminate (38). An episode can be an instance of something whose function is to ϕ, even if ϕ does not take place. That episode does not fulfill that function, in contrast with one that does. So, a subject's activity can be an instance of something with the function to single out α, and thus have the function to single out α, even if α is not present. Therefore, there can be unsuccessful employments of C_α because failures and successes can belong to the same *functional* type.

Other commentators have focused on the notion of function at work in Schellenberg's account. I do not want to rehash the details.[3] Instead, I want to highlight its importance in the account. In particular, I want to draw attention to the crucial role of functions in the argument from perceptual capacities to perceptual contents.

Consider the relevant notion of function. Given that they must anchor unsuccessful capacity employments, what Schellenberg calls "natural functions" (35) cannot be understood just in terms of *causal* or *mechanistic* roles. If it can be brought about in α's absence, a condition of the subject that is an effect of α's presence and that causes a subject to act and form beliefs about α, also plays the causal and mechanistic roles of responding either to α or to the presence of a clever experimental setup not involving α (for instance, responding either to lines of unequal length or to lines of equal length with opposing arrows attached). Schellenberg rejects requiring reliability, which might address this (216).

The relevant notion of natural function instead is broadly *teleological*. It involves a target or aim, in terms of which we understand both what it is for that function to be fulfilled and how something can have or perform that function even without fulfilling it.

However, Schellenberg rules out *etiological* accounts, which explicate teleological functions by saying a phenomenon occurs *because* it does what it does.[4] Thus, Schellenberg rejects naturalistic theories that invoke evolution to specify something's natural teleological function (35–6).

Nonetheless, Schellenberg hopes for a naturalistic account of perception and experience. So, the account of which particulars a capacity functions to single out must be friendly to naturalism. It should be capable of being specified in the terms of a scientific or otherwise naturalistic theory.

Within Schellenberg's constraints, that is needed to secure the result that an episode that fails to fulfill a function belongs to the same functional kind as one that fulfills that function. Otherwise, it is an open question whether or not subjects are in mental states of the same relevant psychological kind when perceiving α and when things are just like that except α is absent.

What are the upshots? It is natural to think that acknowledging a role for perceptual capacities is neutral with respect to one's overall theory of perception.

Schellenberg presents an appealing line of thought in which perceptual capacities secure success conditions, success conditions secure satisfaction conditions, and satisfaction conditions secure content. Therefore, perceptual capacities guarantee perceptual content. If so, embracing perceptual capacities commits one to constitutive representational contents.

This account, however, relies on the claim that perceptual capacities are individuated by natural functions, understood teleologically, though not etiologically. In particular, percep-

[3]See Hill, C. (forthcoming). Susanna Schellenberg on perception. *Mind & Language*; and Orlandi, N. (forthcoming). Content and phenomenology in *The Unity of Perception*. *Mind & Language*.
[4]Wright, L. (1973). Functions. *The Philosophical Review*, 82: 139–68.

tual capacities are individuated by what it is their genuine or proper function to single out and to discriminate. This establishes that successful and unsuccessful employments of a perceptual capacity belong to a common psychological kind.

Without this, why accept that employments of perceptual capacities can be unsuccessful? If they cannot, perceptual capacities lack the employment conditions needed to show that perceptions, illusions, and hallucinations alike constitutively involve representing mind-independent particulars.

In such an account, perceptual capacities are understood partly in terms of a feature that is normatively significant. An episode can perform and fulfill its function, and an episode of the same functional type can perform but fail to fulfill its natural, proper function. Other things equal, the difference between fulfilling and failing to fulfill its natural function matters in subsequent epistemic and normative assessments.

If so, normatively significant features associated with possessing contents (success, satisfaction, accuracy) rely on normatively significant features built in at the outset (fulfillment or failure to fulfill a function). They stem from individuating perceptual capacities by particulars it is their natural function to discern.

If we deny unsuccessful employments, one alternative is to stick with capacities to detect and differentiate. But, this means accepting that their employment requires success. In this case, perceptual capacities do not entail constitutive representational contents shared by perceptions, illusions, and hallucinations.

Another alternative is to appeal instead to capacities to *represent*. A capacity to represent can be employed even in absence of what is represented. Employing a representational capacity (so, representing) does not require being satisfied or accurate, but it does implicate satisfaction or accuracy conditions, and thus content. But, in that case, contentfulness does not stem just from employing discriminatory, selective perceptual capacities. Capacities alone do not secure content.

Given these alternatives, theorizing about perception and perceptual consciousness in terms of perceptual capacities by itself need not entail constitutive representational contents.[5]