

THEORY-LADEN EXPERIENCE AND ILLUSIONS

[KURAM GÜDÜMLÜ DENEYİM VE YANILSAMALAR]

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ABSTRACT

The persistence of certain illusions has been used to argue that some theories cannot affect our perceptual experiences. Learning that one of these illusions is an illusion involves accepting theories. Nevertheless, the illusion does not go away. It seems then that these theories cannot affect our perceptual experiences. This paper contests an assumption of this argument: that the only way in which our perceptions can be affected by holding these theories is by the illusion going away.

Keywords: perception, theory-laden experience, theory, illusions, Müller-Lyer illusion, informationally-encapsulated.

ÖZET

Belirli yanılsamaların devamlılığı, bazı kuramların anlamayla ilgili deneyimlerimizi etkileyemeyeceklerini tartışmak için kullanılmıştır. Bu yanılsamalardan biri olan öğrenme, kabullenme kuramlarını içeren bir yanılsamadır. Buna rağmen yanılsama ortadan kalkmaz. O zaman bu kuramlar anlamayla ilgili deneyimlerimizi etkilemezmiş gibi görünürler. Bu makale, bu savın bir varsayımı olan şu düşünceye karşı çıkmaktadır: algılarımızın bu kuramların korunması yoluyla etkilenebileceği tek yol yanılsamanın ortadan kalkmasıdır.

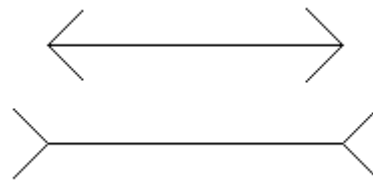
Anahtar Sözcükler: algı, teori-yüklü deneyim, kuram, yanılsama, Müller-Lyer yanılsaması, bilgi sarmallı.

1. A familiar view in philosophy, psychology, anthropology and beyond is that the theories we hold affect how we perceive the world. It is coherent to accept this view while thinking that not all theories can have an effect. This paper evaluates an argument for thinking in this way. The argument appeals to our experiences of certain illusions. These illusions persist even after we learn that they are illusions. It seems then that the theories we acquire when we learn about these illusions cannot have an effect on our perceptions. The argument concludes that this impression is correct. The next section of this paper presents this argument in more detail. It also presents an objection to the argument. The final section of this paper considers three attempts to defend the argument against the objection. None of these defences succeed.

2. The view that the theories we hold affect how we perceive the world is widely referred to as the thesis that perceptual experience is theory-laden. It will be useful to begin by providing a preliminary explanation of this thesis. To grasp how it will be understood here, imagine that a person walks into a room and sees a plant. They do not see the plant as just a particular thing. They see it as a plant. Furthermore, they see it in this way even before having observational evidence to distinguish it from something artificial that has been designed to look just like a plant – before touching the leaves or watching how it responds to adverse conditions, and so on. It seems that a theory they hold is affecting their perceptual experiences so that they see it as a plant. A theory they hold, in this context, is any belief of theirs about how the world beyond their experience is or how it is likely to be, such as the belief that this thing is a plant or the belief that it is likely to be a plant. At this point, one might object that the person does not actually have an experience of seeing a plant. They have an experience of seeing something which they interpret to be a plant. For now, while aiming to understand what it is for theories to affect our perceptions, let us reject this account of their perceptual experience. The person actually sees the plant as a plant. Let us also grant that they could see it as just a thing of some kind, if they have never learnt about plants for instance, and that they could also see it as an artificial entity. In this example then, the person has a visual experience of seeing a plant, but there could be circumstances in which the environment, their

sensory capacities and the directions in which their senses are focused all remain the same, but they have a different perceptual experience, owing to the fact that the theories they hold are different. The thesis that perceptual experience is theory-laden, as it is understood below, is that for each of us there are actual examples along the lines of the example just presented. In a case of this kind, one perceives the world in a particular way, but if one held another theory in place of a certain theory one holds, while the other factors mentioned remain the same, the perceptual experience would be different. The theory one holds can be said to have affected one's perceptual experience.

This paper does not evaluate the thesis that perceptual experience is theory-laden, rather it engages in a debate between those who accept this thesis. The debate is over whether, even if the thesis is true, there are some theories which cannot affect our experiences, 'experiences' being short for 'sensory perceptual experiences'. ('Perception' is also used to mean this below.) Our experiences of illusions have been appealed to in order to decide this matter. The illusion that is often referred to for this purpose is the Müller-Lyer illusion. (Henrich and McCauley, 2006, p. 86; Robbins, 2009) I shall focus on this illusion as well. The illusion results from looking at a two-dimensional figure with horizontal lines of equal length. An instance of this type of figure is reproduced below:



A viewer is subject to the illusion if the figure gives an appearance which, on our ordinary understanding of how things appear, it would only give if it has horizontal lines of different lengths.

To my knowledge, Jerry Fodor (1984) was the first thinker to refer to this illusion in order to dispute the view that any theory we hold can affect our perceptual

experiences. A perceiver who learns that they have been experiencing an illusion, because the horizontal lines are the same length, continues to experience the illusion. From this fact, it would seem that the theory that the lines are the same length cannot have an effect, otherwise the result would be a non-illusory experience of the figure. Here is the general lesson that Fodor draws:

This sort of consideration doesn't make it seem at all as though perception is, as it's often said to be, saturated with cognition through and through. On the contrary, it suggests the reverse: that how the world looks can be peculiarly unaffected by how one knows it to be. I pause to emphasize that the Muller-Lyre is by no means atypical in this respect. To the best of my knowledge, all the standard perceptual illusions exhibit this curiously refractory character: knowing that they *are* illusions doesn't make them go away. (1984, p. 34)

In this quotation, Fodor writes as if our experiences of certain illusions merely suggest that some of a perceiver's theories cannot affect their perceptual experiences. However, he soon claims that it is highly implausible to think otherwise. (1984, p. 35) Fodor has consistently appealed to the same evidence for this conclusion. (Henrich and McCauley, 2006, p. 79) Beyond his own work, the example of how we experience the Müller-Lyer illusion has acquired the status of a classic case in support of the view that perceptual systems are informationally-encapsulated. (Robbins, 2009) According to this view, perceptual experiences represent the world but the process which gives rise to the representational content of a perceptual experience can only access some of the information that the perceiver has acquired. From how we experience the Müller-Lyer figure, it seems that it cannot access the information that the lines are the same length.

The argument that we are considering, which I shall refer to as Fodor's argument, depends on the following assumption: that the theories we acquire when we learn that a particular illusion is an illusion have only affected our perceptual experiences if the illusion goes away. This assumption is evident from the last sentence of the quotation above. There have been articles objecting to Fodor's argument (Churchland, 1988; Cam, 1990; Henrich and McCauley, 2006), but the assumption

has not been contested in these articles. The objection made in this paper is that the argument cannot achieve its aim when it relies on this assumption.

To contest the assumption, let us provisionally adopt a certain understanding of perceptual experience. On this understanding, the things we perceive are, for the most part, perceived in terms of the types of things that we think they are. In other words, if a person is perceiving something and they believe it to be an instance of a type of thing, they generally also perceive it to be an instance of that type of thing. With this understanding in place, there is a difference in perception that we should expect between someone who has never heard of the Müller-Lyer figure and is now subject to the illusion versus someone who is familiar with this figure and encounters it, when browsing through a book say. In the former case, the person will, presumably, believe that this is a two-dimensional figure with horizontal lines of different lengths. They will also perceive the figure in this way. That is to say, they will have a perceptual experience of a figure with horizontal lines of different lengths. In the latter case, the person will believe that they are faced with an instance of a type of two-dimensional figure, a type whose instances have horizontal lines of the same length. But they will not just have this belief while having the same perceptual experience as the person in the former case. Once one learns about this type of figure, one can have experiences of encountering instances of it, much like how one can have experiences of encountering instances of other types of thing. One can have a perceptual experience of the figure as a figure of a certain type, whose instances have horizontal lines of the same length. This is a way in which the theories one has acquired in learning about the Müller-Lyer illusion can affect one's perceptual experiences and we should expect the person to be subject to this effect. Contrary to the assumption we are evaluating, having this sort of experience does not mean that the illusion has gone away. Consequently, Fodor's argument should not persuade those who come to it with the understanding of perceptual experience that we have provisionally adopted. It depends on a false assumption, from their perspective. Anyone who thinks that there are no restrictions on which theories can affect our experiences is likely to have this understanding or a more qualified one which gives rise to the same expectation.

The argument is therefore not suitable for revealing to such people that there are restrictions. But it was produced with the aim of doing precisely this. (Fodor, 1984, pp. 34-35)

3. An understandable response to the objection I have advanced is puzzlement. One might ask, ‘How can it be that the illusion remains if the Müller-Lyer figure is perceived as an instance of a type of figure with horizontal lines of equal length?’ The defence of Fodor’s argument that one can extract from this question, when accompanied by puzzlement, is that it is inconceivable that the illusion remains if the figure is perceived in this way.

To assess this defence, it will be useful to consider in more detail what it is for this particular illusion to go away. Let us suppose that the arrowheads of the Müller-Lyer figure make an impact on how the horizontal lines appear, resulting in the illusion. After all, if one erased the arrowheads, the result would be a typical experience of two horizontal lines of equal length. For the illusion to go away then would be for the arrowheads to cease to make an impact on the appearance of the horizontal lines, such that one now has a typical experience of a figure with horizontal lines of equal length.

This is the sort of experience which Fodor expects us to have, if we know about the illusion and all of our theories can affect experience. But where is the contradiction between the following two thoughts: firstly, an observer has an experience of the figure as an instance of a type of figure, whose instances have horizontal lines of equal length; secondly, the arrowheads continue to make an impact on the appearance these lines give to the observer? Their visual experience would not be a typical experience of seeing a figure with two horizontal lines of equal length, but in the absence of a transparent contradiction, the defence we are considering cannot succeed. For it does not actually make a case for the inconceivability that it proposes.

Before moving onto the second line of defence, it is worth noting that Fodor himself associates the view that any theory can affect our perceptual experiences with the implication that ‘depending on context, you can, or can learn to, see anything as anything.’ (1984, p. 29) You can, for example, see a plant as a person, if you believe in reincarnation. For another example, you can see the horizontal lines of a Müller-Lyer figure as equal in length while the arrowheads continue to impact on the appearance of these lines.

A second defence of Fodor’s argument appeals to one particular account of how the illusion arises. The account presupposes that perceptual experiences represent the world and that their representational content is determined by a problem-solving process. It is necessary to explain this second presupposition before moving to the account itself. When we have a perceptual experience of something external to ourselves, the same sensory stimulations could have various distal causes. But we do not ordinarily experience the external world as if what we are perceiving could be one sort of thing or could be another or could be a third sort of thing, and so on. We simply experience perceiving specific sorts of things. One way of explaining why this should be so, given the many possible causes of the sensory stimulations, is to think of perception as a form of problem-solving. The problem to be solved is which of the many possible causes of the sensory stimulations is the actual cause on this occasion. To solve it the mind uses theories. Theories are used to judge that there is a certain cause as opposed to other possible causes, because according to the perceiver’s theories it is more likely to be this cause. This process is not conscious. The result is a perceptual experience which represents the world in an unambiguous way, on the basis of whichever cause the problem-solving process has judged to be most probable.

Let us now turn to the account of how the Müller-Lyer illusion arises. According to this account, the appearance is the result of the problem-solving process judging that the horizontal line with the arrowheads pointing inwards is further in the distance than the line with the arrowheads pointing outwards. The line which is

judged to be further in the distance is also judged to be longer than the one which is judged closer:

Since, however, the two center lines are in fact of the same length, their retinal projections are identical in size. This identity of retinal projection could be compatible with the three dimensional interpretation... only if the more distant object is larger. So size constancy operates (to compensate, as one might say, for what appears to be the apparent effect of distance) and the two lines are perceived as different in length. (Fodor, 1984, p. 33)

These judgements provide a different solution to the problem of what the cause of the sensory stimulations is, as opposed to taking them to be caused by a figure with horizontal lines of equal length neither of which is further in the distance. Now if this account of why the illusion occurs is correct and if the problem-solving process can access the theory that the lines are actually the same length, it seems that the process would stop judging that one of the lines is longer. The illusion would then go away. It is unclear, though, how the problem-solving process would work to produce a perceptual experience where the illusion remains yet the horizontal lines are represented as equal in length. Thus on the basis of this account, we can rule out the possibility of such an experience.

A major problem with this defence is that the account it relies on of how the illusion arises is inadequate. If the account were correct, then the Müller-Lyer figure would not be experienced as a two-dimensional figure, rather as a three-dimensional thing, part of which is further in the distance. Or at least this is how we should expect it to be experienced on the basis of the account, since no factors that would prevent the manifestation of this kind of experience are mentioned. It would be remarkable for anyone to experience the figure like this. It would be so remarkable that it is natural to wonder whether the account has been misunderstood. Perhaps what the account actually proposes is that from the perspective of the problem-solving process what is causing the sensory stimulations is a two-dimensional figure but one that depicts a three-dimensional thing, with part of this thing being depicted as further in the distance. But then the figure would be

experienced as a two-dimensional figure which depicts a three-dimensional thing. Subjects of the Müller-Lyer illusion do not experience the figure in this way either, though it is relatively easy to switch to it. They experience the figure as a two-dimensional figure which does not depict anything.

The idea that we unconsciously interpret one horizontal line as being further in the distance than the other is attractive, so in producing a revised account one may wish to incorporate a version of this claim. But it must not be incorporated in such a way that the expected result is an experience which corresponds straightforwardly to the interpretation, and something must be said about why this result does not obtain – why subjects of the illusion do not experience one line as further in the distance than the other or as depicting something further in the distance. I do not have a revised account to offer. But in light of what would be a legitimate incorporation of the idea that we unconsciously interpret one line as further in the distance, there is no reason to think that a revised account would exclude the possibility of us experiencing the figure as having lines of equal length while the illusion remains. After all, it will already allow us to experience in a way that is contrary to the interpretation in one respect, because we experience neither line as further in the distance or as depicted in this way.

A third defence of Fodor's argument claims that there is no adequate way to determine whether people ever have perceptual experiences of the kind I have drawn attention to and so we can just ignore this possible way of experiencing. The difference between this way of experiencing and the way which Fodor ascribes to us is so subtle that introspection does not seem as if it would be helpful. Introspective reports are likely to vary, with some people saying or suspecting that they do sometimes experience in the former way and others denying this, even if there is no significant variation between the experiences of these individuals. Some other way of deciding the matter is therefore needed. But, according to this third defence, there is no means of testing which would enable us to decide it. Although I do not have a test in mind, I am not sure if this last claim is true. Psychological testing procedures can be highly imaginative. But the appropriate conclusion to

draw, if the claim is true, is that appeals to our experiences of the Müller-Lyer figure do not carry weight when it comes to the question of whether all of our theories can affect perception. For we are not in a position to clearly tell whether or not our experiences of this figure are affected by the theories we acquired when we learnt about the illusion. Fodor is therefore wrong to appeal to these experiences to establish a negative answer.

It is important to recognize that the way of experiencing which I have drawn attention to is not just a possible way but also an entirely plausible way, a point which this third line of defence overlooks. More precisely, it is plausible if one is operating with an understanding of perceptual experience according to which we, for the most part, perceive things in terms of the types of things that we think they are. The plausibility is highest, I think, in contexts in which we are concerned to recognize the types of things we are faced with. It is plausible that when one turns a page of a book and finds that familiar combination of arrowheads and horizontal lines on the next page, or goes to a seminar and this figure is projected onto a screen, one experiences the thing one perceives as an instance of a type of figure with horizontal lines of the same length, even if the illusion does not go away. The argument we have considered was intended to reveal to those who hold this understanding of perceptual experience that only some theories can affect perception, but it is not suitable for achieving this aim.

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