

CHAPTER SIX

THE METHOD OF CONTRAST
AND THE PERCEPTION OF CAUSALITY
IN AUDITION

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Assuming that there is causality in nature, there are several questions related to our possibility of perceiving it. First of all, there is the crucial distinction between the mere perception of causality, namely our possibility of perceiving that something causes something else to happen (Michotte 1963; Duncker 1935), the fact that our experience represents causality as a part of perceptual content (Siegel 2009), and the idea that we can perceive causality only through a sort of strict analogy with other senses (Butterfill 2009)—namely we see some causal interactions in the same sense as that in which we can hear speech.¹

With a corpus of about 150 experiments, Michotte (1963) tried to demonstrate that adults could perceive that something causes something else to happen. Michotte showed that subjects were inclined to describe scenes of launching and entraining in causal terms. In launching, an object *a* moves towards a stationary object *b* and, upon being touched, object *b* immediately begins to move in the same direction as *a* while *a* stops. In the entraining case, the same thing as in launching happens, but *a* continues to move along *b*. Michotte uses different kinds of objects in his experiments, such as hefty wooden balls, lights and shadows projected onto a screen, or a combination of both. Even if subjects knew that no causal relations were in force in a significant number of situations, they still described the situations shown in causal terms. Michotte's results demonstrate that adults regularly describe launching and entraining in causal terms using sentences such as: "The red square moved the blue one along," or "The ball pushed the shadow." Therefore, Michotte's experiments do not prove that we can genuinely perceive that something causes something else to happen, but that we can describe a specific

situation in causal terms. To prove that we can perceive causality, we need theoretical assumptions about the relationship between experience, beliefs and reports. Moreover, Michotte isolated the exact parameters that have to be respected in order for subjects to describe an action as causal, such as the exact rate at which objects moved, the acceptable delay between the hit of object *a* and the moving of object *b*, or the dimensions of the objects on the screen. Duncker (1935) has also studied the correspondences between the properties of causes and of their effects, extrapolating some specific parameters that have to be satisfied in order for us to experience causality. For example, a sound has to be heard there where an object is seen to strike; a sheet of paper acquires a crease where it is folded; fire ensues shortly after a match is applied to an object. There are also pronounced similarities in content and form between cause and effect. The shape of a footprint corresponds to that of a shoe; a hot object transmits heat to its surroundings; a wet object moistens things in contact with it. In addition, Duncker correlates the accelerated rhythm of the motions of knocking parallels to the changing rhythm of the sounds produced. Both Duncker's and Michotte's reflections are useful for evaluating the correct conditions that have to be satisfied in order to experience causality, but that does not imply that we can represent or perceive causality.

Then, another issue related to the theme of causality concerns whether there is a method that allows us to discover if we can perceive causality and if such a method is applicable to all sense modalities. In what follows, I shall consider Siegel's method of phenomenological contrast as a good tool to discover whether a high-level property, such as causality, can be perceived. I shall state that the method works not only within the case of vision, but also in the specific case of audition.

1. The contrast method

The method of contrast is a useful tool in the philosophy of perception since, by virtue of the examples upon which it is based, it may help us to discover something that is characteristic of perceptual experience. Moreover, in order to apply the method correctly, we need to specify the features of our intuition of difference upon which the method is grounded.

As a starting point, it is necessary to establish what the *relata* connected by the relation of causality are. At this stage, I am not considering the casual theory of perception as sustained by Lewis (1980), Grice (1961), or Armstrong (1968). In their versions of the causal theory, they discuss the conditions in which, during the visual experience *E* of an object *O*, the object *O* would cause having the experience *E*. In fact, as in

every theory of perception, the causal theory also tries to explain the nature of our perceptual states and how these are connected to the world. For the causal view, the *relata* are, on the one hand, my own experience and, on the other hand, the object of the world that caused it. In addition, since we are within the sphere of auditory perception, what I am not considering as *relata* are sound and its source. I am not going to show whether sound sources cause their own sounds and whether we can perceive them as causally related, since I think they can be considered as a sole event, therefore we cannot perceive them as causally related. The *relata* of the causal relation I shall be taking into account are two different sonorous episodes. I shall sustain that the causality we represent is not that connecting sound and sound sources within the same sonorous episode, but the one linking two different sonorous episodes together. With “sonorous episode” I mean a situation in which you have a sound produced by a sound source, namely the jiggle of jingling keys or the music of *Death and the Maiden* performed by a string quartet. Hence, I shall hold that the causality we perceive is not that connecting sound and sound sources within the same sonorous episode, but one linking two different sonorous episodes together.

The phenomenal contrast method is used to “discover” not only the contents of perceptual experiences, i.e. to find out, once a perceptual state has somehow acquired a content, which properties (or objects) enter such content. It is also used to discover if there is something within the perceptual experience that cannot be exhausted by the representational content, since it is irreducible—namely a form of *qualia* or the so-called “phenomenal character” of experience. The phenomenal contrast situation is composed of a “target experience” and a “contrasting experience,” constituting a minimal pair. The constraints on the “target experience” should be that: a) it does not differ from the “contrasting experience” in any other respect than the tested property; and b) it should clearly contain the target property. The method predicts that, if such a contrast were to be obtained, then “the experiences contrast phenomenally because one of them has the hypothesized content, while the other one does not” (Siegel 2009, p. 158). The method is based on the analysis of three different kinds of situations: 1) a scenario that changes with respect to a specific trait and that is perceived in two different ways by the same perceiver; 2) a scenario that remains the same and that has been perceived in a different way by two perceivers alike in all respects but for a difference; 3) a scenario that remains the same and that has been perceived in two different ways by the same perceiver. The majority of the applications of the method has been based on the first and on the second option. My aim here is to see which

among the three options listed above would be the best instance for the correct application of the method.

2. Applications of the method

An example of the first option is Koksvik's "cinema screen argument":

Imagine that you are sitting in a comfortable seat in the middle of a dark movie theatre. You are not in pain, you are not hungry or thirsty, and you are sitting still. The screen turns a uniform, pleasant green. You stare at the screen, concentrating on it. This is the first situation. You relax, closing your eyes. When you open them again, the screen is a uniform garish red. You stare at it, concentrating on it. This is the second situation. Clearly, the characters of your overall phenomenal experiences would be different in the two situations. The best explanation for this is that perceiving something green makes a different contribution to experience than does perceiving something red (Koksvik, forthcoming, p. 6).

Even if Koksvik criticizes the use of the method, the cinema screen argument is meant to show that there is a difference in the way in which a perceiver could perceive a scenario that remains alike but for a specific trait, i.e. the colour of the screen. The idea is that, since the colour of the screen changes, the experience will consequently change. Nonetheless, the nature of such a difference is not obvious at all; it may change, depending on what your theory of perception is.

An example of the second option is given by Kriegel (2007, p. 125):

Suppose Prosop and Aesop are modal counterparts, living their almost indistinguishable lives in two different possible worlds. Everything about Prosop and Aesop is the same, and everything that ever happens to them is the same—with one exception: Prosop is, but Aesop is not, prosopagnostic. And now, on their 21st birthday, Prosop and Aesop are looking tenderly into their respective mothers' eyes. Intuitively, it seems there is a difference in what it is like for them to undergo their respective perceptual experiences at this moment. There is an element that is phenomenologically manifest in Aesop's experience but not in Prosop's. This element is the feel of recognizing mommy's face. Therefore, the property of being mommy's face is phenomenologically manifest in Aesop's perceptual experience.

Aesop and Prosop, with the latter being prosopagnostic, are going to perceive the same scenario differently, therefore the example is meant to show that a high-level property, such as mommy's face, is a property that can be phenomenologically manifest. In this case, mommy's face remains

constant, while the perceivers differ in a specific trait. Therefore, it seems obvious to claim that there is a difference between their experiences explicable, in Kriegel's view, in terms of the representation of a high-level property.

A further example of the second option is Siegel's synchronic case of the perceptual experience of causation (2009, p. 158). The target situation is when you open the curtain of your room and allow some light to come in. Thus, you have the event of drawing the curtain and the event of the increasing the room's illumination. The contrasting scenario is based on the idea that the curtain does not block out any light in the first place since it is translucent. Therefore, just as you uncover the window, the sun is let in as in the target case, but not simply by virtue of drawing the curtain, which is translucent, but because, as the curtain is drawn open, the sun comes out from behind a dark cloud. Yet, the uncovering of the window causes the room to light up progressively anyway, as the curtain is drawn open. Siegel's example is meant to show that what is phenomenologically manifest is the property of causality, a high-level property that will be represented in the target experience—where the perceiver represents the two events as completely unified—and not in the contrasting experience, where, on the contrary, the perceiver would perceive them as distinct. There is an element in the scenario that makes it different, namely the thickness of the curtain, but Siegel sustains that this feature is not relevant to her thesis; hence the perceiver will perceive the two scenarios differently.

I shall propose two examples (a and b) of the third option in which there is no change in the scenario, but which are, nonetheless, perceived differently by the same perceiver.

Suppose you have never seen a pine tree before and are hired to cut down all the pine trees in a grove containing trees of many different sorts. Someone points out to you which trees are pine trees. Some weeks pass, and your disposition to distinguish the pine trees from the others improves. Eventually, you can spot the pine trees immediately: they become visually salient to you. Like the recognitional disposition you gain, the salience of the trees emerges gradually. Gaining this recognitional disposition is reflected in a phenomenological difference between the visual experiences had before and those had after the recognitional disposition was fully developed (Siegel 2011, p. 132).

In example a) the scenario remains stable, but the perceiver might perceive it differently. A person might find herself in two very similar situations, so that the capacity of immediately recognizing pine trees is

exercised in one but not in the other. Here, the target experience is the over-all visual experience one has after learning to recognize pine trees (of which the specific visual experience of recognizing a pine tree is part), and the contrasting experience is the over-all experience one has before learning to recognize pine trees. What is phenomenologically manifest is the ability to recognize a pine tree, and this would explain the difference between the two experiences.

Another example of the third option is Siegel's diachronic case of causality perception (example b). Suppose you are playing catch indoors. Then, by mistake, the ball lands in a potted plant. You see the ball landing and, after that, the lights go out. The ball's landing in the potted plant does not cause the lights to go out and, presumably, you do not believe it does, but *it seems* that the landing of the ball causes the lights to go out. In the second case, again, you see the ball landing in the potted plant and the lights go out, but we are assuming that in this case you have no feeling that the ball's landing *caused* the lights to go out. Siegel says that the phenomenal difference between the two experiences stems from how we perceive the connection of the two events. In the second case, we just see two discrete events as occurring in a quick succession, while in the first one we perceive them as experientially unified in a way that is not merely temporal. Such an experiential unification that we perceive visually is an experiential representation of causation. A phenomenological contrast argument invokes visually experienced causality as the best way to explain the phenomenological difference.

I listed three different ways of applying the phenomenal contrast method. I would say that only the third option is acceptable, since it is the only application in which intuition is the basis of the features necessary to avoid a massive use of introspection. The method starts from the idea that the comparison between two experiences might reveal something new about perceptual experience. The method is based on two passages: 1) the appeal to introspection, which is necessary in order to build the minimal pair argument where the difference appears; 2) the use of arguments in order to investigate the nature of that difference and to choose the best explanation for it, after having excluded possible alternatives. The second passage is based on an inference to the best explanation. In addition, in order to avoid misunderstanding, the same label of "phenomenal contrast method" has to be substituted with the simpler label of "contrast method," so that the "phenomenal" attribute is not confused with the more technical use of the term "phenomenal": such as phenomenal content, or *qualia*. The elimination of "phenomenal" renders the method more impartial; it is a guarantee that the method is a neutral tool that is used to discover the

property represented in our perceptual experience. The difference that holds between the target and the contrasting experiences is a perceptual difference. This difference is based on an intuition that constituted the first passage of the method and has the specific properties that I am going to describe. Among the three available applications of the method listed above, I shall state that only the third one—where the scenario remains the same but a perceiver perceives it in two different ways—represents a good application of the method.

3. First passage of the method

Siegel (2006, p. 130) claims that the phenomenal contrast method appeals to introspection only indirectly. She admits that it is just the starting point of the method, useful to the extent of helping to rule out inadequate contents that may be proposed as forming part of the experience but, at the same time, it is not a totally reliable tool:

Introspection can rule out many proposed contents as inadequate to the phenomenal character of the experience, and thus does not seem to be completely useless as a means of finding out which contents an experience has. It thus seems to take us some way toward finding out which contents a specific experience has. But it does not take us far enough. Both the color-shape hypothesis and the cherry-content hypothesis seem *prima facie* plausible—neither is obviously phenomenally inadequate. If introspection could tell us which of them were correct, then it would tell us directly about the phenomenal character and content of experience to a degree of precision that would be needed to decide between these hypotheses. And if it did that, one of the hypotheses *would* seem obviously phenomenally inadequate. Since it doesn't, we can conclude that introspection does not decide between these hypotheses.

In the above passage, Siegel refers to the impossibility for introspection to establish which theory is correct in the case of a contrasting situation. For instance, supposing you are looking at a bowl of expertly crafted wax cherries, you can affirm either that your visual experience represents the colours and shapes of the wax fruits, but does not go so far as representing that they are fruits, or that your visual experience represents the being property of cherries, and its contents include that there are cherries in the bowl. Introspection will not help you to tell which of the two representations is correct, so it is a limited tool, limited to the construction of the minimal pair of the contrast method. Actually, even if Siegel sustains a relative power of introspection, her examples of the application of the method, in the pine tree case and in the case of the drawn curtains

and room illumination, do not use introspection with parsimony. This claim will become clear only after we would have defined the requirements of the intuition upon which the first passage of the method is based.

Intuition is part of the first stage of the method and it is required to make the minimal pair acceptable, namely to make it evident that there is a clear difference between the contrasting and the target experiences. Arguments do the further job of deciding the best explanation of that difference. In order to be widely accepted, the difference between the two experiences has to have two features between which a tension is created: the difference has to be immediately evident, and, at the same time, it does not have to be easily explicable, it has to be complex and multifaceted. The McGurk effect shows how an intuition of a perceptual difference with those properties is applied. It is perceptually evident to every normal perceiver that the multimodal perception under this illusion would change with the two different ways in which the speaker moves his mouth. There is a difference in the way the two scenarios are perceived. We need an explanation that is not already given in the presentation of the McGurk effect. Generally speaking, the immediate evidence will contribute to the general agreement on the intuition of the difference; a serious explanation of it should avoid assuming that the specific intuition of a difference in itself already contains a possible path to follow in order to define the nature of that difference. For instance, Jackson's black and white room is a very good example of the use of an intuition of a difference that possesses the afore mentioned characteristics (Jackson 1986). Mary, a neuroscientist who has all the possible knowledge regarding colours, is forced to live in a black and white room her entire life. When she escapes from the room and sees a ripe tomato for the first time, she is going to learn something new, namely what it is like to see red. Without evaluating the validity of the argument, Jackson's reasoning is based on a very clear, immediately evident intuition, such as the fact that there is a difference between Mary's knowledge in and out of the room. It is hard to deny that such a difference exists, as it is vividly and unquestionably apparent. Yet, providing an explanation of the nature of such a difference is not an easy task,² and such a difficulty is the confirmation of the complex and multifaceted character of intuition. If a specific difference in a minimal pair were enough to offer a guide for a possible interpretation, the power of argumentation, which is central in the second passage of the method, would be enormously diminished.

Kriegel's method of knowability³ (2007, p. 131) will help to sketch a very general picture of the way in which it is possible for us to acquire the

intuition of a difference. Kriegel claims that in order for knowledge to be phenomenologically manifest, it has to be first-person knowable and, since we can have a first-person knowledge of the contents and attitudes of our conscious judgements, such contents and attitudes are phenomenologically manifest. I do think that the intuition of difference is immediately evident only if it is first-person knowable. As in Kriegel's method, also in my analysis of intuition, being phenomenologically manifest and being first-person knowable are intertwined traits. If the intuition is first-person knowable, then it is probably also phenomenologically manifest. With "phenomenologically manifest," I mean what simply appears to constitute our perceptual experience. Therefore, I am not using "phenomenologically" as a technical term, as if the basic difference that constitutes the starting point of the contrast method were already considered a kind of subjective property, a *quale*, or something that is irreducible to the representational content. I am using the term in a more neutral way, so that "phenomenologically manifest" refers to the status of the intuition which has to appear evident to us. The way in which this intuition appears evident, or is manifest to us, is through the first-person knowledge. Regarding first-person knowledge, I cannot give an exhaustive notion of it but, to follow Kriegel's example, it is possible to define it via the difference between first-person knowledge and third-person knowledge:

Consider the fact that I am right now visualizing a smiling kangaroo. Both you and I are in possession of knowledge of this fact: we both know what I am visualizing. Yet we know this differently. I know it effortlessly, you know it effortfully; I know it without the mediation of inference, you know it with the mediation of inference; I know it quickly, you know it slowly. One may disagree, or be unclear on, one or all of these characterizations of the difference between my knowledge and yours. But surely there is a difference between the two. However one ends up characterizing the difference between my knowledge and your knowledge of the fact that I am visualizing a smiling kangaroo, it is clear that I know it one way whereas you know it another way. The way I know it we will call "first-person knowledge", the way you know it we will call "third-person knowledge" (*ivi*, p. 132).

Being effortless, quick and non-inferential (*ivi*, p. 133), first-person knowledge is what makes intuition immediately evident.

The second trait of the intuition of difference, namely it being complex and multifaceted, would be explained away by the fact that we do not possess any immediate plausible explanation of it but, as stated by the second passage of the method, the choice of the best explanation has to be made through argumentation.

4. Analysis of the three options based on the first passage of the method

In this paragraph I shall evaluate if the specific intuitions of the difference on which the five examples of the method are based respect the characteristics I listed, namely immediate evidence and the complexity and multifacetedness traits. Therefore, the analysis will concern the first passage of the method and will not evaluate if the explanation of each example offers sound arguments to purport its validity. This will be tackled in the last paragraph of the paper, but only in relation to the property of causality. I would claim that example b) of the third option, where the scenario remains the same but the perceiver perceives it in two different ways, is the best application of the method. But I shall start by analysing the other examples.

The example of the pine tree, instance a) of the third option, is a case in which the intuition of difference, even if it is immediately evident, is not complex and multifaceted, but in itself it already contains a possible explanation. The example was meant to show that it is possible to perceive a pine tree as a tree and as a pine tree. The ability to perceive a pine tree as pine tree is due to the acquisition of a recognitional disposition that is reflected in the phenomenological difference between the visual experiences you had before and after the recognitional disposition was fully developed. Furthermore, such recognitional disposition might be result from a process of learning. Both facts, the idea of recognitional disposition and the idea of a process of learning, seem to arise as the most spontaneous and immediate explanation of the intuition of difference, as if the intuition in itself already contained such an explanation and as if introspection alone was sufficient to give such an explanation, like an invasive suggestion. We said that in order to limit the use of introspection, it would have to be used only as a starting point to construct the target and the contrasting case. For instance, in the pine tree example its use is pervasive, therefore the example is not a good one. The same kind of criticism—the idea that the core intuition already contains its explanation so that it is not complex and multifaceted, even if it is immediately evident—might be applicable in the other examples, albeit with a small difference. In the first example, the cinema screen argument, there is a property of the scenario that changes, namely the screen's colour property, and such change corresponds to a difference in the perception of the perceiver. It seems that when the argument entails a different scenario between the contrast and the target experience, this difference already suggests the corresponding difference in terms of the perceiver's

perception. For example, the fact that the cinema screen argument bases its intuition of difference on the represented property of the screen would contain the explanation of the intuition in itself. As if the changed property of the screen was the cause of the difference in perception and, by virtue of it being the cause, it also gives the possible explanation of that difference, using introspection excessively. As I stated beforehand, introspection has to be used only to state the intuition of difference, to present it, without giving any additional clue towards the explanation of it. The examples of Prosop and Aesop and Siegel's synchronic argument are not acceptable for the same reason for which the cinema screen argument is not acceptable.

In Prosop and Aesop example, the scenario, that is mommy's face, remains the same. There is no property of the scenario that changes, but this is perceived in a different way because of the prosopagnosia of Prosop. The two brothers perceive their mother's face differently, so the idea is that the high-property of being a mommy's face can be represented in the content of perceptual experience. Even though the intuition of difference is immediate enough here, as in the case of the cinema screen argument, the fact that the brothers perceive it objectively in a different way would already guide, through introspection, the explanation of such a difference. And that explanation, suggested by the stated difference between the twins, does not make the intuition complex and multifaceted. The stated difference in this case lies not in the scenario's architecture, but on the side of the perceivers.

At the same time, Siegel's synchronic example faces the same problem. In her example, the scenario changes, since the curtain in the contrasting experience is translucent, whereas in the target experience it is not. The curtain case is described in such a way that the colour and thickness of the curtain differ in the two scenes, and it would be plausible to infer that by virtue of this difference there are corresponding differences in the contents of experience. Thus, the difference of the scenario would already force one to give an explanation, letting intuition lose its complexity and multifacetedness. Siegel actually explains the difference in terms of the representation of causality—since what is at issue is not the relation between the curtain and light in general, where the representation of colour and thickness would matter, but the relation between the lighting of the room and the uncovering of the window—but, at this stage, her answer is not relevant, even if she is right. On the contrary, what matters is the fact that the intuition of difference implicitly carries its possible explanation. The first characteristic of the intuition of difference, immediate evidence, is respected in both Siegel's and the twin's examples, since both propose a

situation in which the difference of perception between the target and the contrasting experience is undoubtedly plausible.

The example of the ball landing in a potted plant is the ideal application of the method of contrast. Both of the necessary features are respected. It is likely that we might perceive the landing of a ball in a potted plant and the illumination of the room—if the events happen without a big temporal gap—either as somehow united, tied, or as two distinct and separate events. It is immediately evident that the two events could be perceived in two different ways, but we would not find the explanation of this difference as immediately as the intuition in itself. And this is due to the fact that the scenario remains the same; there are no changes in the property represented. In addition, the perceiver is constituted by a single person, that is there are no twins with an evident difference which might influence the explanation of it. Furthermore, the intuition remains complex since there is no visible and obvious explanation of it. Therefore, the *tensive* aspect of the intuition of difference is preserved, therefore the use of introspection is confined within a legitimate use.

5. The perception of causality in auditory perception

Siegel's case of the ball landing in a potted plant is a good way to apply the method of contrast, at least with respect to the first passage of the method. The second passage consists in the evaluation of the different possible explanations of the intuition of difference, ruling out implausible accounts and leaving just the best explanation. Instead of assessing her arguments, I shall propose a different example. The idea is to present two examples, a synchronic and a diachronic case, which will show that we can perceive causality within the sense modality of audition. Therefore, my diachronic case will have the same schema as that proposed by Siegel. Then, I shall evaluate the best explanation of the intuition of difference, and I shall state that the perception of causality is the best answer. I shall also present a synchronic case that, on the contrary of Siegel's, will contain the features necessary to intuition. I shall conclude with an evaluation of the possible explanations of that last example, arguing that we can auditorily perceive causality.

The diachronic example is the following: suppose you are in a country fair and you decide to have a go at the shooting gallery. The task is to shoot a gun and try hitting a target in the form of a small iron bell. It is possible for a perceiver to hear these two sonorous episodes, the gunshot and the bell's jiggle, in two different ways, either as two unified events,

bound by an impression of causality, or as totally separate and distinct events. If Siegel's potted plant example works, at least in the general formulation of the example, then, also in our case, we have a clear and immediate intuition of a difference between the two experiences, excluding an already suggested explanation. Therefore, we may say that such intuition is complex and multifaceted.

Regarding the synchronic case, let us suppose that in the exact moment in which you hear a note *A* produced by a single horn you hear a sound produced by a crystal glass that resonates at the same frequency of the horn. The idea is that, as in the diachronic case, you might perceive the two sonorous episodes as somehow united or totally distinct, and the immediacy and the complexity of the intuition of difference is preserved.⁴

6. The second passage of the method

The second passage of the method consists in the evaluation of the possible explanations of the difference. My explanation is that the sense of unity we experience is due to the perception of causality, but it is possible to affirm that what helps us to perceive a certain unity in both cases is a form of Husserlian retention. Suppose you hear five sounds: the jingle of jiggling keys, the stomping of a foot, the creak of a door, the clink of a cup and the rustling of a peace of paper. Husserl (1928) claims that if you compare this auditory experience to the experience of a series of five sounds as parts of a melody, you would perceive the notes of the melody as unified in a way in which the five motley sounds are not perceived, even if at each moment you could remember the sounds from the previous moments. Husserl's idea is that in the case of melody, we "retain" the previous notes, which is a form of remembering, whereas in the motley sound case we do not. The opponent of the causal content thesis would say that the difference between the contrasting and the target experiences is due to the sense of retention which is present in the target but not in the contrasting case. We can reply to this objection by saying that in the diachronic case we are talking of motley sounds, not a melody of sounds, so that we cannot refer to retention. Also in the synchronic case, even if there is a horn which produces the note *A*, the note is related to the sound of the crystal glass through resonance, not melody.

It is possible to disregard causality by stating either that the impression of unity can be explained away by reference to retention and not causality, or that we do not experience any sense of unity at all. In addition, the difference may be due to non-causal contents. For example, in the diachronic case, one would say that there is a time gap between the shot

and the bell's jiggle that varies in the two experiences. And this variation is responsible for the difference in their perception. But I am assuming that the scenario remains exactly the same, the time gap between the shot and the bell's jiggle also remains stable, so that the difference is not due to this non-causal content. The same answer is applicable to other possible non-causal content explanations, such as the duration property of the respective sounds of the gun and the bell in the diachronic case, or the sound volume of the horn's note A and the crystal glass sound.

The contrast method is an excellent strategy that enables us to discover that a high-order property, such as causality, can be part of our auditory perception. Nevertheless, the intuition of difference has to have specific features in order for the method of contrast to be acceptable. Within the experience of auditory perception, via a diachronic and a synchronic case, it is possible to perceive causality as a relation between two different sonorous episodes.

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Notes

¹ I shall not discuss this third option in this paper.

² It would be enough to look at the Stanford Encyclopedia of Philosophy entry on “Qualia: The Knowledge Argument” (Nida-Rümelin 2002) to realize that many different explanations of the new knowledge Mary gets out of the room have been given, and to verify how Jackson’s intuition of difference is not immediately definable, and that, in addition, plenty of arguments are needed to support one view or another.

³ Kriegel considers his method as an alternative to the method of contrast, an alternative that does not face the problem of not distinguishing between contingent phenomenology and necessary phenomenology.

⁴ Siegel aims to show not that we can perceive causality, but that the property of causality is part of the representational content of our experience. For her, experiential representation of properties or relations is not *factive*, so you can represent that p even if p is not true. In fact, her examples are cases in which there is no real causal link between the events, nonetheless the property of causality is considered as being represented as a part of the content of experience. In my paper I shall not discuss the difference between perceiving and having an experiential representation of causality. For this reason, I proposed two cases where the sonorous episodes are linked by a real causal relation, so that, at least with regard to my examples, I do not have to draw the difference between the auditory perception of causality and the experiential representation of it.