

HARMONY AND MELODY IN KANT'S SECOND ANALOGY OF EXPERIENCE

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Abstract: My aim in this paper is to examine how, from a Kantian perspective, the model of the Second Analogy of Experience could be applied to the perception of objective successions and coexistences of musical sounds, that is to say, to the hearing of chords and melodic lines. I begin by showing how the reasoning of the Second Analogy can reasonably be transferred to this new realm of experience; I examine, then, some difficulties related to this proposed transference of the Kantian argument; and I conclude by raising and answering some objections that could be made against my proposal.

Key-words: Kant's Second Analogy of Experience. Causality. Melody. Harmony. Auditory Experience.

Introduction

My aim in this paper is to examine how, from a Kantian perspective, the model of the Second Analogy of Experience could be applied to the perception of *objective* successions and coexistences of musical sounds. In his original exposition, Kant drew on the famous examples of the visual perception of a stationary house and of a ship in motion to illustrate his argument – what I propose here is to extend that discussion to the realm of auditory experience, especially to the hearing of chords and melodic lines. My reason to suggest that such an extension might be acceptable to Kant is the Reflection 5750, in which, after repeating the rule of the Second Analogy for distinguishing between simultaneity and succession, Kant immediately adds, as if by way of illustration, the words “harmony and melody”. In the first section of my text I try to show how the reasoning of the Second Analogy might be transferred to this new realm of experience; then, in the following section, I examine some difficulties related to this proposed transference of the Kantian argument; and I conclude by presenting and answering some objections that could be raised against my proposal.¹

¹ I want to thank to Prof. Ubirajara Rancan de Azevedo Marques and Prof. Paulo Justi for the seminal inputs that led to the writing of this paper.

1 The Aural Manifold and the Second Analogy of Experience

We may start our discussion directly from Kant's words in the Reflection 5750, first in the original German and afterwards in translation:

[Die Einheit] Das Verheltnis des Vielen unter einander, so fern sie [zusammen] in einem enthalten sind, ist die Verbindung. Die Verbindung nach einer Regel: *Ordnung*. Im Gemüthe ist alle Ordnung in der Zeit [entweder] und zwar nach einander. was wechselseitig nach einander angeschauet werden kan, ist zugleich. Harmonie und Melodie. Regel ist: die Allgemeinheit der Bedingung in der Bestimmung des Mannigfaltigen (KANT, *Reflexionen*, AA 18: 343).

The relation [The unity] of the many with one another, as far as they are [together] contained in one, is the combination. The combination according to a rule: *order*. In the mind, all order is in time and [or], indeed, one after another. What can be intuited one after another and conversely is simultaneous. Harmony and melody. The rule is: the generality of the condition in the determination of the multiple (KANT, *Reflexionen*, AA 18: 343).²

Despite the fragmentary nature of the passage, it clearly describes one important intermediate result of the argument of the Second Analogy: while all perceptions subjectively succeed one another in time, it must be possible to distinguish through them what is an objective succession of states, i.e., a change in the objects themselves, and what is only the successive apprehension of a state or object that remains objectively unchanged in time. If perceptions can be intuited as succeeding one other and conversely (i.e., if their order is arbitrary), then they represent simultaneous states. And, *ça va sans dire*, if they can only be intuited in a determinate order, that is, according to a rule, they represent states that follow one another objectively in time. The fact that Kant mentions in this immediate context the musical dimensions of harmony and melody – that is, the two possible ways of organizing musical sounds according, respectively, to the synchronic and diachronic axes – provides a compelling motivation to think that Kant might indeed be considering these dimensions as two different ways of synthesizing the manifold of sounds according to simultaneity or succession.

Let us now proceed to fill in the details of the above outline. To do this, I must quote, somewhat extensively, the core of Kant's argument in the Second Analogy of Experience:³

² My translation. I am indebted to Prof. Günter Zöllner, for a crucial correction to the translation that I had originally proposed for this passage, thanks to which its relationship with the argument of the Second Analogy became even clearer.

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(1) The apprehension of the manifold of appearance [*Mannigfaltig der Erscheinung*] is always successive. The representations [*Vorstellungen*] of the parts succeed one another. Whether they also succeed in the object is a second point for reflection, which is not contained in the first. (B 234)

(2) If appearances were things in themselves, then no human being would be able to assess from the succession of representations how the manifold is combined in the object. For we have to do only with our representations; how things in themselves may be (without regard to representations through which they affect us) is entirely beyond our cognitive sphere. (A 189, B 235)

(3) Now although the appearances are not things in themselves, and nevertheless are the only thing that can be given to us for cognition, I still have to show what sort of combination in time pertains to the manifold in appearances itself even though the representation of it in the apprehension is always successive. Thus, e.g., the apprehension of the manifold in the appearance of a house that stands before me is successive. Now the question is whether the manifold of this house is also successive, which certainly no one will concede. (A 190, B 235)

(4) That something happens, i.e., that something or a state [*Zustand*] comes to be that previously was not, cannot be empirically perceived except where an appearance precedes that does not contain the state itself. [...] Every apprehension of an occurrence [*Begebenheit*] is therefore a perception that follows another one. Since this is the case in all synthesis of apprehension, however, as I have shown above in the case of the appearance of a house, the apprehension of an occurrence is not yet thereby distinguished from any other. (A 191-192, B 236-237)

(5) Yet I also note that, if in the case of an appearance that contains a happening [*Geschehen*] I call the preceding state of perception *A* and the following one *B*, then *B* can only follow *A* in apprehension, but the perception *A* cannot follow but only precede *B*. E.g., I see a ship driven downstream. My perception of its position downstream follows the perception of its position upstream, and it is impossible that in the apprehension of this appearance the ship should first be perceived downstream and afterwards upstream. The order in the sequence of the perceptions in apprehension is therefore here determined, and the apprehension is bound to it. (A 192, B 237)

(6) In the series of these perceptions [of a manifold that is not objectively successive, as in the example of the house] there was therefore no determinate order that made it necessary when I had to begin in the apprehension in order to combine the manifold empirically. But this rule is always to be found in the perception of that which happens, and it makes the order of perceptions that follow one another (in the apprehension of this appearance) **necessary**. [...] This connection must therefore consist in the order of the manifold of appearance in accordance with which the apprehension of one thing (that which happens) follows that of the other (which precedes) **in accordance with a rule**. Only thereby can I be justified in saying of the appearance itself, and not merely of my apprehension, that a sequence is to be encountered in it, which is to say as much as that I cannot arrange the apprehension otherwise than in exactly this sequence. (A 192-193, B 238)

To paraphrase and summarize the argument: Our perceptions are always successive, whether it is the perception of an event or of a state that does not change objectively. We do not have access to the things in themselves, but even so we must be able to make a distinction

³ I follow roughly in this sketch the outline provided by Wrynn Smith in “Kant and the General Law of Causality”, p. 113-114. All quotations come from the Paul Guyer & Allen W. Wood translation of the *Critique of Pure Reason*, pp. 305-307.

between events and states. The apprehension of an *event*, or of something that happens, requires us to perceive one state succeeding another in which it was not included, but this alone does not suffice to make the desired distinction. We must resort to the *irreversibility* of the sequence of apprehensions of states, i.e., to a determination of this order that is not arbitrary. That is, in the case of an event, or an objective temporal succession, my synthesis of the multiple of representations cannot start anywhere and proceed to any other point (as in the case of the apprehension of the house), but must follow an order that is objectively determined by a rule that (as in the case of the ship) makes that sequence of perceptions, and not another, necessary.

Thus, the apprehension of an event cannot be achieved in a purely empirical manner, from the passive perception of a sequence of representations. For, as Kant says, “[The] connection is not the work of mere sense and intuition, but is here rather the product of a synthetic faculty of the imagination, which determines inner sense with regard to temporal relations” (B 233) or “in other words, through the mere perception the **objective relation** of the appearances that are succeeding one another remains undetermined” (B 234). It is essential the intervention of a conceptual element that acts to connect the multiple in accordance with a *rule*. The subsumption of the multiple to this rule is what gives it its objective status and allows us to say, not that we experience only a merely subjective succession of representations, but that the appearance itself contains an actual succession of states that is necessary, because it cannot be arranged in different order.

Without going into the difficult details of the interpretation of these passages, my aim here is only to indicate the feasibility of transferring the foregoing considerations to the case in which we distinguish an objective temporal succession of musical sounds (melody) from the simultaneity of these sounds in a chord (harmony). In other words, my aim is to suggest that Kant’s reference to “harmony and melody” at the end of Reflection 5750 can be construed as *more than a simple analogy*, providing an effective auditory model for the application of the same arguments with which Kant illustrated his famous examples of the visual perception of the house and of the moving ship.

Let us see, then, how this could work in the case of a manifold of sounds. Whether it is a chord or a melodic sequence, the apprehension of the multiple, according to Kant’s

general thesis, “is always successive, and the representations of the parts succeed one another” (B 234). These “sonic objects” are given to us empirically, and we do not have access to what may be “in themselves”; so we must be able to determine their objective temporal relationship (succession or coexistence) starting from the (subjective) succession of the multiple of their representations. This task, however, cannot be solved by perception alone, because it leaves undetermined the *objective relation* of the sounds; so, “a synthetic faculty of the imagination” must intervene in order to determine the temporal relationships involved. Thus, in the case of a chord, conceived as the permanence of a certain state in time, I can successively direct my attention to each of its notes, from the higher to the lower, or conversely, but there is no implication that this order is determined by something in the object itself, nor that the notes begin to exist at the time I attend to them: this order is purely arbitrary and depends only on my choice. When, on the other hand, I apprehend a melodic sequence, the implication is that I am apprehending a sequence of *happenings* (*Geschehen*), in which certain sound states come into existence and cease to exist in a temporal succession, so that *the only possibility* is that the subsequent notes follow the precedent notes in perception, and it is not possible that I come to perceive them in a different order. In Kant’s words, “The order in the sequence of the perceptions in apprehension is therefore here determined, and the apprehension is bound to it.” (A 192, B 237). So, in conclusion, in the series of the perceptions of a manifold of sounds that is not objectively successive, as in the case of a chord, “there was no determinate order that made it necessary when I had to begin in the apprehension in order to combine the manifold empirically” (A 193, B 238). In the perception of a melody, on the other hand, this rule always exist, and it makes the perceptions in the apprehension of this phenomenon to follow one another in a *necessary* order, that is, it determines as *irreversible* the sequence in which these sounds are perceived. The model of the Second Analogy seems, therefore, fully applicable to the distinction between successive and simultaneous notes, or between melody and harmony.

2 Difficulties in the application of the Second Analogy

We should not be surprised that the same misunderstandings that traditionally plagued Kant’s exposition of the Second Analogy of Experience can be replicated in the

context of the auditory model proposed here. Thus, Strawson accused Kant of *non sequitur*, supposing that he was proposing that it is from the observation of the irreversibility of the succession of representations that we infer the occurrence of an event,⁴ when, in fact, as we saw above, Kant explicitly states that “through the mere perception the **objective relation** of the appearances that are succeeding one another remains undetermined” (B 234), and proposes, instead, that it is the fact that the two states of affairs *A* and *B* are in objective succession that determines the irreversibility of their perceptual representation.⁵ Furthermore, it is difficult to explain how the irreversibility of the sequence of representations could ever be experimentally verified, for this sequence, as something particular, is unique and unrepeatable: having heard a melody at a given occasion, I cannot go back in time and try to hear those very same notes in another order. And if we took the notes, not as individual occurrences, but as classes (as *types* instead of *tokens*), then obviously this sequence *is not irreversible*, since it is entirely possible that on some other occasion, the notes are played backwards, or have their order altered in any other way, but it is clear that we would then be dealing with *another* melody, and this does not affect at all the Kantian argument on the perception of the distinction between states and events, or, in our case, melodies and chords.

Another common difficulty is to understand what is this *rule* that, for Kant, necessarily determines the order of our representations of an objective succession of states such as the successive positions of the ship or, in our case, the successive notes of a melody. We are not dealing here with a prescriptive rule that determines, for example, that Beethoven's Fifth Symphony must always start with the sequence of notes *G - G - G - E-flat*, but rather with a rule that expresses a *causal determination*⁶ associated to the particular situation in which those sounds were produced – it is a rule, supported by causal laws of mechanics and acoustics, that establishes that, since certain physical objects (musical instruments) were bowed or blown or banged in such and such a way, the production of such and such sounds in such and such order must necessarily follow, and this is an objective determination that can

⁴ Cf. Strawson, *The Bounds of Sense*, p. 137.

⁵ “In our case I must therefore derive the *subjective sequence* of apprehension from the *objective sequence* of appearances, for otherwise the former would be entirely undetermined and no appearance would be distinguished from any other” (A 193, B 238)

⁶ One should not forget that the Second Analogy of Experience states precisely that “All alterations occur in accordance with the law of the connection of cause and effect”.

not be circumvented by any other choice that we would like to impose to the order in which we hear these sounds; a possibility, however, that is within our reach when the sounds are simultaneous.

3 Objections to the proposal

It remains to examine some objections that can be raised against my proposed extension of the model of the Second Analogy to the domain of auditory and musical phenomena. I think the most obvious one would be to refuse that we ever have a successive apprehension of the manifold of a chord, saying instead that we apprehend chords at once, and identify them by a certain quality that each one has – thus, one would say, we immediately apprehended and recognize a major chord, and distinguish it from a minor chord based in how it sounds as a unity, without individually perceiving its components; and this kind of recognition can be performed by experienced musicians also in the case of more complex chords (as the various seventh chords with altered fifths), based on their characteristic and unanalyzed sonority.

Against this objection, one could use Kant's own words, as he, both in Reflection 5750 and in the proof of the Second Analogy, unconditionally stated that our representations are *always* successive, even when what is apprehended is something simultaneous. One can wonder, in fact, how strictly Kant meant this affirmation and, although it is clear that the views of the ceiling and of the floor of a room must necessarily be successive, is not so clear that the same should hold for the visual apprehension of small regions of space, as this sheet of paper or, perhaps, the people directly in front of me right now. However, experimental data of the physiology of vision show that our eyes move constantly when we observe a static scene, and it is only a very small part of this scene that is, each time, at the center of our perception. Thus, the fact that we are not directly aware of this finer and temporally distributed texture of our visual apprehension does not allow us to affirm that it does not exist, and it is not necessary to assume that the original non-synthesized multiple of our representations should always be accessible to our consciousness. The same reasoning applies, then, to the auditory perception of chords – the fact that they may appear to us as having a proper and indivisible quality does not mean that, at the most basic level, their

apprehension was not successive. Moreover, experience shows that people with some musical training are able to direct their attention to each individual note of a chord, and, as it were, apprehend their constituents successively, in the manner described above, which shows that these elements must, after all, be actually present in their perception of the chord.

Another objection might be that, in his proof of the Second Analogy, Kant is dealing with physical objects or events, and that visual representations, for him, are just mental data that refer to these physical objects and events. It is true that Kant admitted that sensible representations may be considered “objects” in a certain sense, but made clear that these are not what he is investigating in the Analogies.⁷ But in our previous discussion it would seem that, in dealing with “chords” and “melodies”, we were confined to the circle of pure sensory data, devoid of any reference to empirical reality and to physical objects that are the “real” subject of our experience. However, we must here be on guard against the vagaries of our language. For although it is often said that we *see objects*, and not only that we see the light emitted by those objects or that we see only luminous sensations, we are not so used to say that we *hear objects*, preferring to say that we hear the sounds produced by objects. But a little reflection is enough to show that this partiality of language has no solid basis, and that vision has no special privileges as to providing us with access to the objects of our experience, as Bishop Berkeley acutely observed 300 years ago.⁸ As to this point, it is worth repeating what was said above: in our application of the model of the Second Analogy to sonic and musical phenomena we are always assuming that the sounds we hear are the result of the action or interaction of physical objects (musical instruments) empirically existing in the outside world; and there is, therefore, no essential difference in ontological legitimacy between this model and the model of visual perception that Kant favored in his proof of the Second Analogy.

⁷ “Now one can, to be sure, call everything, and even every representation, insofar as one is conscious of it, an object, only what this word is to mean in the cases of appearances, not insofar as they are (as representations) objects, but rather only insofar as they designate an object, requires a deeper investigation.” (B 234-235)

⁸ “From what we have shewn it is a manifest Consequence, that the Ideas of Space, Outness, and Things placed at a Distance, are not, strictly speaking, the Object of Sight; they are not otherwise perceived by the Eye than by the Ear. Sitting in my Study I hear a Coach drive along the Street; I look through the Casement and see it; I walk out and enter into it; thus, common Speech would incline one to think, I heard, saw, and touch'd the same thing, to wit, the Coach.” (*An Essay Towards a new Theory of Vision*, §46).

Conclusion

Which leads us directly to the conclusion and the morals I want to extract from this presentation. The reflections that Kant developed in the section of the First Critique devoted to the Analogies of Experience are among the deepest, even if not the most enlightening, in the entire philosophical tradition. They have a very general scope and design, being connected, in principle, to the establishment and organization of the totality of empirical experience in all its aspects. It is a little frustrating, then, that Kant's argument remained so attached to the paradigms of visual perception, risking conveying the impression that its scope is less general than one might expect. By transposing Kant's reasoning and conclusions to the field of musical perception and to the understanding of melodic and harmonic phenomena I intended, on one hand, to emphasize the fruitfulness of the Kantian approach through its application to a new field of relationships, and, on the other, to contribute to enlarge the range of musical investigations inspired by the philosophy of Kant.

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