Hans Roels Orpheus Research Centre in Music

During a research project starting in 2011 with eight contemporary composers I was surprised by one of the composers who created his music in a linear way with a very low number of revisions, initial plans, or explorations. Although there are popular images of composers who rely on inspiration instead of labouring for expressive solutions, I do not know of any empirical study that describes a creative process with such a low amount of experimentation. Research into the creative process in music composition is a rather young discipline and the number of studies is limited. According to Sloboda in 1995 (Sloboda 2001) there are "still fewer than ten serious studies of the compositional process, involving in total, fewer than twenty composers." Without doubt this number has grown in the past decade but not dramatically. Thus, it could be that composing with a minimum of experimentation takes place but is not yet studied.

In this article I describe the creative process of the Belgian composer Frederik Neyrinck in composing *Aphorisme IX*, after clarifying the method of this study.¹ I focus on the low amount of experimentation and provide a tentative explanation. But a reflection on these results is necessary and I argue that the few, loose experiments in the creative process of this work are possibly connected to previous works and their processes. Thus, the starting question, Is there any experimentation in the creative process of *Aphorisme IX*? is to be replaced by the double question, Is there a meaningful chain of experiments during this process and how does it relate to the creative process of this one composition?

The meaning of the term experimentation in this article should be situated within the context of the creative process of music composition (CPMC), the process during which a composer is composing music and performs a range of mental and physical activities such as forming, realising, adapting, playing or evaluating ideas. A similar use of the term experimentation is found in Katz and Gardner (2012). I consider experimentation to be a dynamic and transformative process between mind and matter. It refers to searching for activities by the composer through which he or she tries to transform an idea or feeling into an

¹ CD, track 9, is a recording of Neyrinck's Aphorisme IX.

expressive figure that can become a (part of a) composition. Experimentation has a double-sided nature: it implies a coming together of cognitive/emotive processes on the one hand and actions on the other. This has important implications for the research method used to study experimentation. An action that is unexpected is not necessarily an experiment; for example, it may have an external cause. A composer can change ideas during the creative process because he or she receives the news that the instrumentation has changed. Thus if one only relies on the data produced by these actions (sketches, score versions, . . .), one risks labelling changes or new elements as experimentation. On the other hand, if one only relies on what composers thought (and thus use verbal accounts or interviews), one risks labelling every new plan or idea as an experiment. Therefore this study builds upon a combination of different data and not just on one kind of data. This data-rich approach is also found in studies by Newman (2008), Donin and Theureau (2007), and Collins (2007).

Moreover, experimentation is not a stationary phenomenon: it changes constantly. This is evident if one looks at the action component of experimentation: the traces (sketches, scores, . . .) of these actions often change visibly during the CPMC. But what the composer thinks, imagines, and feels while composing also changes during the creative process. There are different theories on the CPMC (Bennett 1976, Sloboda 1985, Collins 2005) but the transformative relation between what is going on in the head of the composer and what he or she is doing is a common element. Thus, a researcher needs to be very conscious of time gaps between the traces of an action of an experiment and the reports on the cognitive-emotive component of the same experiment.

Design of the study

The study of the creative work of Neyrinck, then a twenty-seven-year-old composer from the Flanders region in Belgium, is part of a larger study of the creative process of a group of composers. In 2011 twenty-four composers were asked to produce a short composition for this study. Eight agreed to do so, Neyrinck among them. All the contacted composers were selected because they wrote contemporary-classical or experimental music and because they had substantial professional experience with composing music for acoustic instruments. Between November 2011 and July 2012 the eight composers were interviewed, for the first time before the performance of the short compositions (the "pre-interview") and the second time after the first performance (the "post-interview"). The study took place in a naturalistic setting: the composer could compose at home or anywhere he or she wished, and could do this in the manner of their own preference. The only unusual element for a naturalistic setting was the requirement included in the commission that the work engage with the subject of polyphony.² In the field of Belgian contemporary classical music commissions almost never prescribe musical features or problems: in this case, the task did.

² Studying the CPMC of more than one composer was an important aim of this study and the task had the advantage of creating a common starting point to study the individual trajectories of the composers.

In this study a diverse range of data and traces were collected that shed a light on both the cognitive-emotive and the action-based components of experimentation without intruding into the creative process. Before the composers started composing, they were asked to archive their preparatory compositional material. When they finished the composition, the researcher assisted the composers to retrieve backup files (from notation software) with previous versions from their computer. Most of the correspondence between the researcher and the composer happened via email which also enabled easy storage of these messages.

Another source of information was the two interviews. These were semi-structured and contained a set of questions that was prepared in advance. The actual interview style was open, and there was room for additional questions during an individual interview. In general the pre-interview contained more fixed questions (on the creative process) and gave the sketches and other traces a memory recall function to help the composer remember the phases, decisions, and actions within this process. The post-interview had fewer prepared questions; it tackled issues that arose from the first interview and dealt more with the performance of the short composition. The post-interview also functioned as a verification session. The composer was asked to clarify some data and traces when these were unreadable, obscure or only contained partial information.

Because the creative process and experimentation are dynamic processes and composers and other artists forget previous stages of these processes (Bennett 1976, Lubart 1994), the pre-interview was done as soon as possible after the composer had notified the researcher that the composition was finished. This fast timing was intended to ensure that the creative process of that composition was still available in the memory of the composer. Neyrinck was interviewed by me twelve days after he had sent the first draft of the score (version A2, see below).³ The data from his creative process consisted of one paper sketch, three digital versions in notation software, five emails, and two interviews.

Experimentation in the creative process of Aphorisme IX by Frederik Neyrinck

To examine the experimentation in the creative phase of *Aphorisme IX*, three features were searched for in the data that capture both the "mind-matter" duality of experimentation and its dynamism. Two features indicate that experimentation can take place:

- 1. The number of stages and versions in the compositional process (based on the mapping of this process) and the differences between these stages
- 2. The references that the composer makes to new elements, searches, or experimentations

³ This is the same as one day after Neyrinck had sent me an edited score with a title page, remarks, and individual parts.

The third feature indicates the opposite, the absence of experimentation:

3. The references by the composer to the use of existing procedures and concepts

The separate features are not an argument for greater or less experimentation and its small or large impact because they can have other causes,⁴ but the simultaneous presence of all three features is a strong indicator for experimentation. Thus, if I found a small number of versions with no big differences between them, not many new elements and the application of existing procedures in the compositional process, I conclude that not a lot of experimentation took place in the creative phase of this work.

The mapping of the compositional process is quite straightforward in the case of Neyrinck composing *Aphorisme IX*. The original idea was to compose a *lamento* because a close relative had died. There are no sketches of this first idea (A1) but the composer says that he played around with this idea on the piano.⁵ Approximately two weeks later came the next version (A2), written down in a paper sketch. The original *lamento* idea (A1) had one slow tempo; version A2 has alternating fast and slow sections. The composer explains this change by describing the *lamento* idea as a bit too sentimental, and adds that a composition structure built on two alternating tempi would work better than relying on one. Asking explicitly in the interviews for more details about the *lamento* idea (A1) and for other ideas before A2, delivered no additional information.

The following version (A₃), ten days later, is in fact not a real version, it contains almost no changes compared to A₂; it is simply a digital copy of the previous one, transcribed into notation software. The next two versions were made three months later, after the first performance (and because a second performance was planned). Again they contain no fundamental changes but refinements, according to the scores and to what the composer says in the post-interview and in emails. The viola da gamba is substituted for the cello⁶ but the part itself is left almost unchanged. To improve the resonating quality of the piano, some chords are thickened, transposed an octave higher, or their dynamic level is adjusted. In general the compositional process developed in a linear way with one important difference between the first and the second version.

The next feature in examining the experimentation is the statements by the composer on new elements and searches while composing *Aphorisme IX*. He mentions two elements that were new for him: the viola da gamba and the pizzicato secco in the piano part (on the strings inside the piano). But the newness of the baroque instrument did not have serious consequences while composing. Neyrinck himself mentions a previous composition for cello solo that served as a guideline to write for the viola da gamba and the versions A4 and A5

⁴ The lack of versions could be caused by the loss of paper or digital sketches, statements by the composer on the newness of his work could be caused by the deliberate creation of an artistic self-image, etc.

⁵ Possibly one early paper sketch might have got lost. Neyrinck mentions this sketch in the pre-interview and immediately looked for them in his sketch book but without result. It is unclear if the sketch ever existed.

⁶ The cello was substituted for the viola da gamba because the trio that played in the second performance contained a cello and no gamba.

simply replace the gamba with the cello without any compositional changes. The pizzicato secco occurs twice during the work and clearly is a micro-structural event.

In the post-interview an instance of a searching activity by the composer is found. After the first rehearsal and performance he was dissatisfied with the effect of the piano resonances (obtained by holding silent keys down). These were too silent according to him and this was not unimportant because these soft sounds create continuity within the slow sections. The post-interview took place in the middle of rehearsals for a second performance of the work and the composer talks about attempts at home and in rehearsals to solve this problem (by playing the chords that trigger the resonance louder, by adding notes to these chords or by changing the number of silent keys).

In contrast to the low number of statements on new elements or searching activities, there are fifteen references in the two interviews where the composer says that he used an existing procedure, technique, or concept. Four of these statements are very general, for example: "since a few years I always use the same pitch organisation system." Three others are a bit more specific because the composer uses a general description of his older works—for example, "in other works I have also used these piano resonances." On eight occasions he makes a link between the current, short composition and a specific, older composition, of which he mentions the title or other characteristics. The items that he had previously used in other works are numerous and diverse. They consist of both micro- and macro-structural features such as:

- the use of tempo contrasts and tempo relations between sections to structure a composition
- the use of instrumentation to shape the different sections in a composition
- the creation of a sound texture in which the instruments blend together and the creation of small differences within this overall texture by individual sound events
- the technique of creating resonances (sympathetic strings) on the piano by holding down certain keys
- the specific way of composing for the flute (instrumentation)
- the pitch organisation (melodic and harmonic)
- the compositional practice of establishing a time scheme (with sections) at the beginning of the creative process

Moreover the composer also referred to his other works when talking about aspirations that he had while composing this work. He specifically mentioned his fascination with obtaining a brevity of expression (through writing short compositions) and the hope to find an original way of writing for the piano in contemporary music.

To summarise, our analysis has found many arguments that Neyrinck was reapplying many procedures that he had used in previous works and that the creative process of this work was linear with a minimum of searching activities deviating from this straight path. But there were two instances of experimentation (the version A1 and the attempts to solve the piano resonance problem).

In conclusion, while composing this work he was doing this with a low amount of experimentation.

But maybe Neyrinck conceived this composition as a technical exercise and therefore didn't spend a lot of time on searching and experimenting? As mentioned above, the commission to compose this work contained a specific musical task (on polyphony). But on two occasions in the interview Neyrinck clearly says that this composition wasn't just a technical task. Answering a question on the polyphonic task in the commission, he replied: "I didn't always think about these voices, I have mainly thought about the music, how can I create a nice piece, that is my main aim." Moreover, Neyrinck has chosen to have the work performed a second time, a strange practice if he considered it just an exercise.

Another objection against this analysis could state that the short duration of the composition explains why Neyrinck experimented less. Creating a one-minute work demands less effort than for one that lasts ten or twenty minutes. However, the link between shortness and lack of experimentation is difficult to maintain because in the same study more and often contradicting ideas and versions could be traced with some of the other composers.⁷ Also, for Neyrinck the short duration was not just a practical constraint of the commission, but an artistic challenge: he expressed this repeatedly in the two interviews. Thus one would expect a search to fully realise it while composing.

Cross-border experimentation

The explanation of the low level of experimentation could also be that Neyrinck relied on previously developed procedures that were either personally developed or externally available. The former seems more plausible than the latter, not only because in the interviews Neyrinck declares that he developed some of these techniques in previous works but also because existing handbooks on composition offer some procedures to compose, but not really a personal blend like the one that Neyrinck has developed.

But I believe that the view of the minimum of experimentation and on the experimentation itself in the creative process of Neyrinck is distorted by the design and framework of this study. As mentioned before, it is important to realise that the CPMC is a dynamic process in which both the ideas of the composer and the realisations change frequently. Initially ill-defined problems may be restructured radically or vague plans may become more focused. Within a dynamic process it is difficult to draw conclusions starting from one "frozen" instance. Studying one instance of experimentation separately may lead to absurd observations: the challenge is to find a meaningful grouping of experiments, a cycle of experiments. The cognitive/emotional processes that together with the actions give shape to the phenomenon of experimentation

⁷ This is true for the creative process of six of the eight composers studied. Except for Neyrinck there was one other composer whose creative process can be considered as linear, but this composer clearly stated that the short work he produced should be seen as a study, sketch, or unfinished composition and not as a finished work. He added that this study was made within a research project on polyphony and was different from his previous compositions.

change in time, thus it is also important to reflect upon the referential time one uses when linking an experimental action to a cognitive/emotional process. For example, a sketch of a composer reveals that he suddenly starts using an interior piano technique. Does this mean that this was a new element for the composer compared to what the composer was thinking or aspiring to at the start of this experiment, or at the start of a cycle of experiments, or at the start of the creative process of this particular composition? These considerations lead me to think that in the case of Neyrinck, with so little experimentation during the composition of this one work, I was missing the point. Where is the meaningful group of experiments in his case? This question forced me to look at the limitations of this study and in particular to move beyond the boundaries of studying the genesis of only *one* composition.

Neyrinck composed quite a lot in 2011, thirteen works according to his own list. A closer look at the titles of these works reveals something peculiar: many of them are part of a cycle of compositions. In 2011 eleven of thirteen compositions are part of series, with names such as Samsa, Gestalt, Aphorismes, and Mischung, and a number of works entitled Echo, which the composer describes as "derivatives" of other compositions (for example Echo der Gestalt II). Could it be that in Neyrinck's case experimentations within the framework of a series of compositions should be studied? And that for example in certain works, or in between works of a series, the composer experiments more than during the composition of another work and then applies possible results in the next composition of this series? Studying the creative process of one work within a cycle of works might deliver only limited insight, comparable to studying only one week of creative activity of a composer who works for two months on a new composition. Donin (2012) has drawn attention to a peculiar phenomenon with regard to this compositional strategy of "cycle development": "a cycle is often the result of compositional ideas stemming from a first piece that compel further elaboration." He adds: "These are then included in the composer's atelier as they are applied, over the course of the cycle, to successive pieces through replication, variation and designation, or even theorisation." This implies that there can be big differences, from pure replications to new explorations, within the creative processes of the pieces within one cycle of compositions.

At this point Neyrinck was asked two questions via email: "What does a cycle of works mean to you?" and "Could you make this answer concrete by giving some explanation about the following two cycli: *Samsa* and *Aphorismes*?" Neyrinck answers that he likes to work with cycles or series of works because he finds it interesting to let a musical starting point clash with a specific instrumentation. He gives a short explanation of the musical starting points of the series *Mischung*, *Processus*, and *Gestalt* and continues with the *Aphorismes* series, of which the short work in this study is a part: "This is a study on 'how do I write or how do I want to write for a piano?' And because I didn't see possibilities in writing a large work, I opted for the *Aphorismes*, in which different possibilities of resonances and layers of resonances are researched." It is remarkable that he mentions the terms "study" and "researched" in this email, because he had used only a few instances of similar terms in the interviews (as mentioned

above) and in one of these cases he was talking precisely about the same resonances. This confirms that the meaningful cycle of experiments transcends this one short composition. However, to study this in detail, one would need to have sketches and in-time accounts of Neyrinck's creative process while he was composing his previous works, especially the other parts of the *Aphorismes* cycle. Unfortunately these data are not available.

To conclude, in the creative process of Aphorisme IX very little experimentation has been found, but just as this work is hard to describe as an "autonomous" composition its creative process is also not a separate entity. Both belong to a cycle, a larger and longer-lasting unit. Studying this creative process without connecting it to the creative process of the rest of the Aphorismes cycle is quite meaningless. We end up looking at seemingly separate, loose experiments without being able to describe the connection to the chain of experimentation that shaped the whole cycle (according to the composer). Deliège and Richelle (2006) have already written very briefly on this problem of timing in the study of the CPMC. In the introduction to the book Musical Creativity, they write: "One major methodological difficulty in the study of creative acts is the time dimension. Supposing adequate tools are available, when exactly shall we apply them? In other words, at what point in time does the sonnet begin in the poet's mind, or the symphony in the composer's brain? And how does the process develop in time? Is it continuous or discontinuous?" This study was based on a common design in naturalistic studies of the CPMC, namely following the creative process of one composition between the decision to start composing and the first performance, but it turned out that Aphorisme IX had a prehistory, a creative phase that took place before the composer decided to write this work and before he started composing this work in a fixed time-span of a few weeks. To find a meaningful entity within the broad category of creative acts of a composer, the notion of experimentation provided an important clue. Compared to general creative acts, which are often loose and accidental, experiments can contain development or form a meaningful whole, but they do not always lead linearly to an artistic product. In this way experimentation hovers in between general creative acts and the creative process of a composition. For the study of the genesis of compositions it is a future challenge to find a method that treats the start and end of the creative process as transparent boundaries and that is aware of how intertwined loose creative acts, cycles of experimentation, and the creative process may be.8 Finding such a method would enable us to provide a more profound description and explanation of the minimal amount of experimentation in cases such as the composition of Aphorisme IX.

⁸ To this a more speculative thought may be added: maybe the entanglement of loose creative acts, cycles of experimentation, and the creative process is not the only challenge. The process and product (the composition) of "cycle" composers such as Neyrinck may also be more interwoven. Some *Aphorismes* may not only function as a work within a cycle but also as a preparatory "sketch" or "draft" or "experiment" for the next *Aphorisme*.

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