The development of interpretation while learning a piece for performance: A case study

ROGER CHAFFIN
University of Connecticut

TONY LEMIEUX
University of Connecticut

GABRIELA IMREH
New Jersey, USA

COLLEEN ARMITAGE
University of Connecticut
Abstract

Musical performances by concert soloists in the Western classical tradition are highly prepared and practiced. Where, in the process of learning and performing a piece, does the creativity occur? How does the performer’s interpretation emerge during the learning process, and how can a highly automatic performance be creative? To find out, we observed a concert pianist (the third author) as she learned the third movement (Presto) of J.S. Bach’s *Italian Concerto*. The pianist videotaped her practice from beginning to end as she learned the piece for a recording session, commenting about what she was doing from time to time. She also systematically reported three kinds of cues that she had trained herself to attend to during performance. Basic performance cues are the fingerings, technical difficulties, and familiar patterns that still need attention during performance. Interpretive cues are decisions about phrasing, dynamics, tempo, and pedalling that still require attention. Expressive cues represent the performer’s expressive goals, e.g. “surprise”. Comments were examined for mention of performance cues. Practice was examined using regression analysis to identify sessions in which bars containing performance cues were given special attention. Practice performances were examined in the same way to determine whether bars containing performance cues were systematically played faster or slower than other bars. Initially the pianist attended to basic cues, then to interpretive, and finally to expressive cues. Attending to highly practiced performance cues gives the performer control over the performance and also allows a performer to depart creatively, from a planned trajectory without jeopardizing the overall expressive structure. Creative decision making is required both in the initial development of an interpretation of a score and also during its execution in each performance. Highly practiced performances may be said to be creative to the extent that the performer remains mindful of expressive goals for the piece.
Musical performance is generally seen as a creative activity. Performers are referred to as “artists” and their skills are held in high esteem. But, at the same time a performance by a concert soloist in the Western classical tradition is highly prepared and practiced, involving the execution of overlearned motor skills that have become automatic through repetition. There seems to be a contradiction here. How can a performance be both creative and at the same time highly automatized? Part of the answer, of course, is that a lot of creativity goes into the initial creation of the performance during the learning of the piece. There are a myriad of decisions to be made about technique and interpretation to bring to life the composer’s intentions represented abstractly in the musical score. But once the piece has been learned, what then? Is performance itself a creative activity or is it simply the rote, reproduction of an overlearned motor skill? One way to answer this question is to ask what the performer thinks about during a performance. If the performer is thinking about what he is going to have for supper after the recital, this is not creative. Similarly, if he thinks about mechanical details, or about possible pitfalls, this too is not very creative. If, on the other hand, the performer is focussed on musical goals -- on interpretation and expression -- then maybe performance is creative.

So, what does a concert soloist think about while performing? To find out, we observed a concert pianist (the third author) as she learned the third movement (Presto) of the Italian Concerto by J.S. Bach for performance. The pianist reported that during a performance she thinks about performance cues, a small number of carefully selected features of the music that serve as landmarks to guide the performance. Performance cues are selected and rehearsed during practice. The pianist practices attending to the cues so that eventually they come to mind automatically and effortlessly, eliciting the corresponding actions of the hands, and becoming an integral part of the performance. Performance cues provide a way of monitoring and controlling the rapid and automatic actions of the hands. They also provide points of intervention at which the performance can be restarted when something goes wrong or where it can be modified in response to idiosyncrasies of instrument, hall, audience, or fellow musicians.

In learning a new piece of music, a pianist makes many decisions about basic issues (e.g., fingering), and interpretation (e.g., phrasing) whose implementation becomes automatic with practice. Usually a few problem spots continue to require attention during performance, e.g., a tricky fingering or critical phrasing. These become the basic and interpretive performance cues that the pianist first learns to attend to in practice performances. During practice, attention is directed mainly towards problems. In front of an audience, however, problems must recede into the background so that musical expressiveness can take center stage, both in the mind of the performer and (as a result) in the aesthetic experience of the audience. This transformation does not happen by magic but requires preparation. The pianist reported that in the weeks immediately before a performance, she practices attending to expressive performance cues, which represent the feelings she wants to convey to the audience, e.g., surprise, gaiety, excitement. Expressive goals are identified early on, but in this final phase of practice the pianist practices playing with them as the main focus of attention.

To test these intuitions, the pianist identified the performance cues she used for the Presto. We then looked for evidence that she was paying attention to performance cues during practice and during performance. We looked at four types of information. First, we examined the pianist’s spontaneous comments made during practice for mention of performance cues. Second, we looked at the practice itself to see whether bars containing performance cues were repeated more, or were used more often as starting or stopping places. Third, we looked at practice performances to see if there were hesitations at performance cues, as the pianist collected her thoughts about what came next. Finally, two years later, the pianist wrote out the score from memory and we looked at whether bars containing performance cues were recalled better. If the pianist’s description of her preparation is accurate, we should find both practice and performances controlled successively first by basic, then by interpretive, and finally by expressive cues.
Method

The *Presto* was learned for the professional recording of an all-Bach CD (Imreh, 1996). The pianist videotaped her practice from the first time she sat down at the piano until the piece was ready to record, commenting periodically on what she was doing. We recorded 28.5 hours of practice in 42 sessions out of a total of 33.5 hours and 57 sessions. Comments and practice were transcribed. For practice, we recorded the location of each stop and start and counted the number of starts, stops, and repetitions of each bar. We also identified practice performances where the pianist played the entire piece without the score and measured the duration of each bar from the start of one bar to the next.

The pianist reported three types of performance cue that needed attention during performance by marking them on copies of the score. Basic performance cues indicated fingerings, technical difficulties, and patterns of notes needing attention. Interpretive cues indicated decisions about phrasing, dynamics, tempo, and pedalling. Expressive cues reflected expressive goals, e.g., “surprise”, “lightly”, “hold back”. The number of cues was tallied for each bar. To determine whether the cues affected practice or performance, regression analyses were used to relate the number of cues in each bar to how much the bar was practiced and to its duration in practice performances. Dependent variables were the number of starts, stops, and repetitions of each bar in practice, and log-bar duration during practice performances. Predictor variables were the number of cues per bar (Chaffin & Imreh, 2001; Chaffin, Imreh & Crawford, 2002, Ch 8).

Results

Pianist’s comments. There were two occasions on which the pianist gave a practice performance and then spontaneously went through the piece describing the performance cues she had been using. The first occasion was in session 17 when the pianist was learning to play without the score for the first time.

“Eventually at this level you start to have a sort of map of the piece in your mind and you... focus on certain places in it. I’ll try to tell you... I have a thing in bar 42 where I have to remember to go all the way to the G... I have to concentrate on the fingering in bar 65, the left hand divided between two, four fingers......I have, oh boy, the scale in the left hand at [bar] 124, the two fours in a row.... The fingering in 186”.

The description consisted almost entirely of basic features (fingering, technical difficulties, patterns), with no mention of interpretation or expression.

When the pianist next went through the piece again in the same way, in session 24, the focus had shifted to interpretation. Basic cues were hardly mentioned.

“And again the... double counterpoint that I’ve been working on ever since in bar 45. And then it changes in bar 49 -- the hands switch roles... I’m doing a little bit of retard, just smaller than the other one in bar 75. I’m trying to bring out, in 77, the C’s in the left and F in left hand. And I’m still trying to do a fairly aggressive ... [plays], just in left hand. And then I return to very lightly pianissimo. And again, just the left hand Bb (accented), and then I return to pianissimo.... And that gives me again room for a nice crescendo in 86 and on... I try to put the accents in. It’s very hard. Most times I’m lucky, but in 93 I sometimes miss that D below the staff. It’s a big jump and it goes awfully fast. But I want to emphasize it because it’s a theme...”

This description was given the day before the pianist was to perform the piece in public for the first time. It is, therefore, a little surprising that expression was only mentioned to two places.

“I’m playing this whole next section [Bc] quite transparent and light [from] 39 on... I am trying to bring [the theme] out in a more lyrical way in bar 52 and maybe not quite so short”.
But this does not mean that the performances was not expressive. Expression was built into the interpretive features were the focus of the pianist’s attention. What this tells us is that preparation of the piece was not yet complete. The pianist was still focussed on the interpretive details, not on the more general expressive goals. This was, indeed, the pianist’s view. Although she was trying it out in a public performance, she put in another 11 hours of practice before she was satisfied with her preparation.

Unfortunately, the final 11 hours contain no spontaneous listing of performance cues like those in sessions 17 and 24, so we have to look elsewhere to see what role expressive cues played.

**Practice.** Another source of information about what the pianist was attending to is the practice itself. Where did the pianist start and stop and which bars were repeated more? Regression analyses of starts, stops, and repetitions showed that in session 17 bars with basic and interpretive cues were repeated more than other bars, indicating that the pianist was practicing these cues. In sessions 20-24, in contrast, there were no effects of basic cues, but interpretive and expressive cues affected practice. Again, we see a progression from basic to interpretive, to expressive.

**Practice performances.** Another place to look for effects of performance cues is on the bar-by-bar tempo of practice performances. Regression analyses showed that bars containing basic cues were played more slowly than other bars in every practice performance until session 50. In early sessions the hesitations are clearly audible while in later sessions they are not, at least to the casual listener. The pianist, however, found the performances “cautious” and during sessions 31-49 was working to make her playing sound more “effortless”. In session 50 this goal was finally achieved and, for the first time, basic cues had no effect on bar duration, something that was also true of the CD performance. The pianist was no longer holding on to basic cues to ensure accurate execution.

For present purposes, the main interest in the performance data is the effect of expressive cues on the CD performance. Bars containing expressive cues were played faster than other bars in this performance. The effect appears to reflect demarcation of an expressive boundary (Clarke, 1995). This is our first indication that expressive cues affected performance as well as practice and it appeared at the very end of the learning process.

**Recall.** The most direct evidence that the pianist learned to think of the piece in terms of expressive cues comes, however, not from performance but from her recall of the piece two years later. Beginnings of sections and bars containing expressive cues were recalled better than other bars with recall declining with serial position in the section and the expressive phrase (Chaffin & Imreh, 1997; in press). There was no comparable effect for basic and interpretive cues. The serial position effects suggest that the music was organized in the pianist’s mind in terms of sections and expressive phrases. If so, then it is likely that sometime during the final polishing for performance, the pianist had begun to think of the piece in terms of these expressive phrases rather than in terms of the interpretive or basic cues that she had focussed on earlier.

**Conclusion**

The pianist went to great lengths to ensure that she had a conceptual map of the piece and did not have to rely on motor and auditory memory alone. She devoted a lot of energy to ensuring that her head could control her hands.

“My fingers were playing the notes just fine. The practice I needed was in my head. I had to learn to keep track of where I was. It was a matter of learning exactly what I needed to be thinking of as I played, and at exactly what point”.

Having a conceptual map of the piece in mind gives the performer control, providing the possibility of departing from the planned performance to recover from a mishap, to sidestep impending disaster, or to take advantage of some expressive opportunity afforded by the moment. Without a conceptual map, the performer is forced to rely on the unfolding performance to automatically trigger motor and auditory memory. We have shown that the pianist’s conceptual
map evolved over the course of practice. Basic cues, were supplanted by interpretive cues, which were eventually overlaid by expressive cues.

The pianist said little about expressive cues during practice, but she did mark them on the score after the piece had been performed, labelling them with terms like “surprise”, “light”, and “hold back”. Ideally a pianist hopes to play with cues like these in the spotlight of attention against a background of basic and interpretive cues and structural knowledge. When this happens the pianist experiences “flow” (Csikszentmihalyi & Csikszentmihalyi, 1988). A trance-like state in which “The notes have become you and you have become the notes” (Ivo Pogorelich, in Mach, 1999, vol. 2, p. 244). But each performance is different, and on another occasion a performer may have to work hard to keep things on track. This is when the basic and interpretive performance cues are called into play. It is this ability to perform with expressive and interpretive goals in mind that makes a performance creative. The cues give the performer the control needed to respond to the idiosyncratic demands and opportunities of each performance in terms of the overall expressive goals for the piece rather than in terms of the demands of the instant.
Addresse of correspondence:

ROGER CHAFFIN  
Department of Psychology U-1020,  
University of Connecticut, Storrs CT 06269-1020  
Roger.Chaffin@UConn.edu  

TONY LEMIEUX  
Department of Psychology U-1020,  
University of Connecticut, Storrs CT 06269-1020  

GABRIELA IMREH,  
8 Cambridge Dr. West Trenton, NJ 08628  
Gabrielaimreh@aol.com.  

COLLEEN ARMITAGE  
Department of Psychology U-1020,  
University of Connecticut, Storrs CT 06269-1020
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