

# Manfred Clynes, Pianist

## First encounter, battle, and retreat

I first met Manfred Clynes at the 1985 Workshop on Physical and Neuropsychological Foundations of Music in Ossiach, Austria. At the time he was head of the music research center at the New South Wales State Conservatorium of Music in Sydney, Australia. I was a researcher in speech perception with a strong interest in music perception and performance. I had done some experiments on memory for songs with two colleagues, Mary Lou Serafine and Robert Crowder, which had been my only foray into music-related research so far; this enabled me to present a paper in Ossiach and thus attend my first music conference. Incidentally, it was also my first conference in my native country, which I happen to share with Clynes. At the time, I had not heard of Clynes' work, but I was struck immediately by its originality and its relevance to my musical interests.

I was also very skeptical. After reading as many of Clynes' publications as I could lay my hands on, I decided to conduct a perceptual test of his "composer's pulse" theory (Clynes, 1977, 1983). He very kindly assisted me by synthesizing the musical materials for that study (Repp, 1989) in his laboratory, as I did not have the necessary equipment and experience then. He also provided much advice which later turned into criticism when I deviated from the original design of the study. I subsequently acquired a digital piano and MIDI software and conducted a second perceptual study with my own materials (Repp, 1990b), as well as an analysis of recorded piano performances in search of the "Beethoven pulse" (Repp, 1990c). Both studies elicited strong critiques from Clynes (1990, 1994), followed by desperate defenses and counterattacks on my part (Repp, 1990a, 1994b). I did not emerge unscathed from this battle. Clearly, my studies had some shortcomings, for which I was duly reprimanded.

manded. They were not totally worthless, however: Having appeared in mainstream journals, they attracted attention to Clynes' important ideas, and they stimulated him to conduct a perceptual study of his own which provided impressive support for his theory (Clynes, 1995). I accept it as the last word on the issue, for the time being.

So I entered the world of music research on a rocky path and with bruised knees, but I did not turn back. My initial experiments had been done on the side, as it were, but I soon began to phase out my speech perception research and decided that music research was what I wanted to do henceforth. This decision was facilitated by the liberal atmosphere and generosity of Haskins Laboratories, whose support (together with a 3-month research fellowship from the Institute for Perception Research in Eindhoven) tided me over a few unstable years, until I obtained a grant from the National Institute of Mental Health that, at the time of this writing, is holding my chin above water.

In my initial years of music research I carved out a small niche for myself in the sparsely populated research areas of objective performance analysis, perception of expressive microstructure, and experimental aesthetics of music performance. Although every study I conduct reveals how much more I still have to learn, I have never regretted my decision to change fields and am enjoying my research greatly. I am deeply grateful to Manfred Clynes for providing the initial stimulus to change, and for remaining a source of inspiration.

### **A second, more peaceful encounter**

My purpose here is not to dwell on the past—all wounds have healed by now—nor to comment further on Clynes' scientific theories. In my more recent work I have not been directly concerned with them, although they are often on my mind. He, meanwhile, has made spectacular progress in developing a performance synthesis system that provides audible proof of the power of his ideas (and of their limits). I would like to focus here on another kind of audible proof of his fertile mind and musical imagination that has had a profound effect on me.

Over the years, Clynes has been kind enough to send me copies of several tapes of his performances as a pianist, recorded during some of his now very infrequent public appearances. Most outstanding among these recordings is his deeply moving interpretation of Bach's *Goldberg Variations*, a towering masterpiece of the keyboard literature.<sup>1</sup> Indeed,

<sup>1</sup>Clynes was active as a concert pianist in his younger years and received high acclaim from critics and the general public, particularly for his performances of the *Goldberg Variations*.

it was the expressive range and transcendent beauty of Clynes' music-making, more than any of his somewhat idiosyncratic scientific writings, that gave me confidence in his work, without necessarily removing all my skepticism. Research on music generally tends to be limited by the researcher's level of musical feeling and thought. For Clynes, however, there is no such limit. After hearing a few samples of his playing, I knew that he had the ability of penetrating to the profoundest musical truths.

### **Clynes and the *Goldberg Variations***

In the remainder of this paper, I would like to present a few glimpses of Clynes' extraordinary art in the form of graphic analyses of a few excerpts from his performance of the *Goldberg Variations*. This performance was recorded live in a concert given in Sydney on September 12, 1978, and was issued on cassette tape by the American Sentic Association.<sup>2</sup>

In order to confirm and better appreciate the uniqueness of Clynes' performance, I listened to a number of commercial recordings of the *Goldberg Variations*: the piano versions by Glenn Gould (CBS Masterworks MK 37779 [1981]), Charles Rosen (Sony Classical SBK 48173), Rosalyn Tureck (VAI Audio VAIA 1029), and Xiao-Mei Zhu (AVACCA 02-2); and the harpsichord versions by Maggie Cole (Virgin Classics VC 7 91444-2), Kenneth Gilbert (Harmonia Mundi HMC 901240), Wanda Landowska (EMI CDH 7610082), and Gustav Leonhardt (Teldec 8.43632).<sup>3</sup> Each of these interpretations has its merits, with Landowska's lively and colorful rendition deserving special mention. But, to my ears, only Gould's is on the same exalted level as Clynes'. Gould's performance is an extraordinary artistic achievement, as has been recognized by critics and music lovers worldwide. However, his approach is fundamentally different from Clynes'. Gould treats the work essentially as a giant Chaconne: He takes hardly any repeats, connects most variations without breaks, and observes strict tempo proportionality, which results in some unusual tempo choices for individual variations. His Aria is probably the slowest on record. His slow variations are serene and unbelievably focused, whereas the faster ones are lively and sharply articulated with the characteristic Gould touch. His playing emphasizes the structural aspects of the composition rather than its emotional content; it is fascinating and occasionally mesmerizing. And, of course, it is technically

<sup>2</sup> I do not know whether this association still exists and whether the cassette is available from it. (See Appendix for Clynes' available works—ed.)

<sup>3</sup> Zhu's recording is a French CD that I received as a gift; it may not be commercially available in the United States. In addition to the recordings named, I am familiar with Gould's 1955 recording and with Ralph Kirkpatrick's harpsichord version, though I have not listened to them recently.

perfect, as Gould was not only one of the most accurate pianists but also a dedicated editor in the recording studio.

Clynes' live performance is not technically perfect<sup>4</sup>, but this does not matter. He takes all the repeats and emphasizes the diversity and individual character of the variations. His interpretation is intensely emotional, especially in the slower variations, and he applies a degree of rubato and a dynamic range that one rarely encounters in Bach. However, his approach is vindicated by its convincing and powerful effect. Where others play just chains of notes, he finds (or rather introduces) expressive shapes that evoke deep resonances in the listener, very much as predicted by his theory of sentics (Clynes, 1977). Almost certainly, his theoretical ideas have influenced his performance style, and vice versa. In his hands, the variations become a colorful procession of character pieces and dances that alternately move the listener's soul and body, while the structural intricacy of the variations fades into the background. Musical motion and emotion occupy center stage, like living flesh surrounding the structural skeleton. Gould's performance, by comparison, is abstract and otherworldly.

The verbal characterization of performance qualities is a difficult undertaking that always remains subjective and vague compared to the qualitative precision of the auditory impression. It is not easy to tell by ear, and to describe accurately, what an artist has done to achieve a certain perceived quality. Objective performance analysis (Seashore, 1936) provides a means of capturing expressive variation quantitatively and portraying it graphically, so that the expressive shape of a performance lasting several minutes can be surveyed in a glance. While it cannot be a substitute for listening, it can reveal the agogic and dynamic devices an artist uses to achieve certain effects. It is unfortunate that dynamic variation is very difficult to measure accurately from an acoustic recording of polyphonic music. Clynes makes very effective use of the full dynamic range of the piano, and there is absolutely no attempt on his part to imitate the dynamically restricted harpsichord sound. The present measurements, however, were limited to expressive timing. The relevant excerpts were digitized at 22.255 kHz, and the onsets of successive tones were measured in a waveform display with auditory feedback, using SOUNDEDIT16 software on a Macintosh Quadra 660AV computer.<sup>5</sup>

Three particularly instructive excerpts will be considered in my analyses, and in each case Clynes' very special agogics will be contrasted with that of one other pianist.

<sup>4</sup> A 1995 digital remastering of the recording has removed the few slight imperfections of the live performance.

<sup>5</sup> In the case of asynchronous onsets of nominally simultaneous tones, the melodically most important tone was measured.

## Example 1:

## Variato 6. Canone alla Seconda. a 1 Clav.

The image displays a musical score for a single keyboard instrument, titled "Variato 6. Canone alla Seconda. a 1 Clav." The score is written in G major and 3/8 time, consisting of six systems of music. Each system contains a grand staff with a treble and bass clef. The music features a complex rhythmic pattern with frequent sixteenth and thirty-second notes, often beamed together. The right hand plays a melodic line with grace notes and slurs, while the left hand provides a dense, rhythmic accompaniment. The score includes first and second endings, marked with "1." and "2." and repeat signs. There are also several section markers, represented by a double bar line with a percent sign (%).

**Variation 6.** This variation is the *Canone alla Seconda* in G major (Example 1).<sup>6</sup> It is an ingenious canon in which both melodic voices are played by the right hand while the left hand provides a figurative or punctate accompaniment. The two voices are out of phase by one measure and differ in pitch by a major second. There is stepwise pitch motion on the accented beats from bar to bar, with a cadence every eight bars. The variation is divided into two 16-bar sections, each with a repeat. The meter is 3/8, and there is continuous sixteenth-note motion throughout, provided either by the melody voices or by the accompaniment, or both. This made it easy to examine expressive timing: The temporal distance from one sixteenth-note onset to the next was measured and plotted as a function of score position. An expressionless performance would appear as a straight line in this graph.

Figure 1 (p.76) compares the expressive timing profiles of the performances by Manfred Clynes and Xiao-Mei Zhu.<sup>7</sup> Zhu's performance of this variation, while fluent and articulate, comes close to being devoid of expression. She takes a rather fast tempo (about 230 ms per sixteenth note, which translates into 130 eighth-note, or 43 dotted quarter-note, beats per minute) and omits the repeat of the second section. Her deviations from strict timing are, with a few exceptions, small and irregular. Some of this variation may be just random "motor noise" and some may be systematic but due to fingering. There is a pronounced *ritardando* at the end of each section, and a smaller one in bar 24 (a cadence). In bar 30, expressive lengthening occurs on the downbeat, the last dissonance before the final cadence. Phrase-initial lengthening (bars 1 and 17) may also be observed. Not much else can be said about this plain rendition.

In contrast, Clynes' performance has a grandly sculpted timing profile. First, his tempo is much slower than Zhu's, somewhere around 400 ms per sixteenth note (75 eighth-note or 25 dotted quarter-note beats per minute). This is the slowest tempo I have heard in this variation. Clynes needs this tempo, however, to obtain the desired expression for the principal motive, a descending sequence of five notes which recurs many times and always ends on a downbeat. While Zhu and others consider this sequence as merely a descending scale fragment, or treat the four sixteenth notes as an extended upbeat to the final long note, for Clynes it becomes an emotional gesture signifying (to my sensibilities) something akin to benevolence or the offering of comfort. To be effective, the gesture needs a slight *crescendo* as well as a pronounced *ritardando*, which is what we see in Clynes' timing profile. However, there is great variety in his execution of this expressive shape, and the degree of *ritardando* varies from bar to bar. Some of this variability may

<sup>6</sup>The musical text of all examples is taken from the Bach-Gesellschaft Edition (Leipzig, 1853/63).

<sup>7</sup>The unusually short interval in bar 9 may reflect a slip of the finger or possibly a bad splice on the CD.

be due to “motor noise” or fingering patterns, as in Zhu’s case, but much of it is probably intentional.

Between bars 9 and 14 a steady slowing of the tempo may be observed, especially in Clynes’ first traversal, which culminates in a very large ritardando in bar 13. These bars have a denser texture than other bars because the two canonic voices overlap and cross each other in simultaneous sixteenth-note motion. A melodic and harmonic peak is reached in bar 12, whereupon the

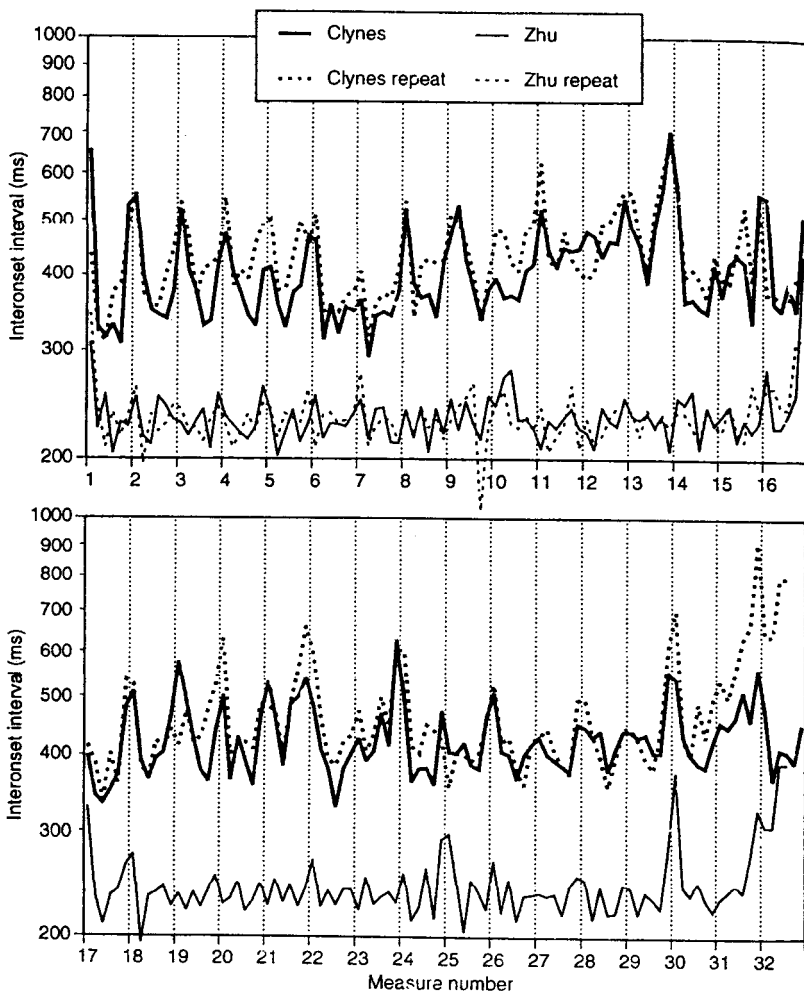


Fig. 1. Expressive timing profiles of Variation 6, as played by Manfred Clynes and Xiao-Mei Zhu (AVACCA 02-2).

5-note descending motive is stated once more in a single voice, leading to a final dissonance on the downbeat of bar 14 that then resolves into the final cadence. It is this final statement of the motive that Clynes builds up to and that forms the expressive climax of the whole variation, a particularly poignant moment not found in any other performance I have heard. Finally, it should be noted that Clynes intensifies his expressive maneuvers in the repeats: Many of the *ritardandi* are larger and start earlier in his second traversal of the music. The emotional impact on the listener is magnified correspondingly.

**Variation 21.** Another variation in which Clynes achieves extraordinary powers of expression, especially in comparison to other artists, is the *Canone alla Settima* in G minor. This is a somber and chromatic piece of great beauty, surely one of the finest variations in the set. It is in common time and is divided into two 8-bar sections, with repeats. It will suffice to consider the first eight bars only (Example 2). As in Variation 6, the music is in continuous sixteenth-note motion. The timing data are shown in Figure 2 (p.79).<sup>8</sup>

As the comparison performance here, I have chosen the one by Charles Rosen. His performance is rigorous and scholarly; it captures the serious tone of the variation well, but shows little flexibility. This is confirmed by his timing profile. His tempo is much faster than Clynes'; approximately 280 ms per sixteenth note or about 54 quarter-note beats per minute. There is little pronounced agogic variation; even the *ritardando* at the end of the section is small. The repeat is rather similar to the first rendition. In bars 3 and 7–8, regular oscillations can be seen. In these bars, one or two voices move chromatically in eighth notes, and Rosen displaces the onsets of the intervening sixteenth notes in the third voice towards the following eighth notes, which he plays with much dynamic emphasis.

The tempo of Clynes' performance is much slower than Rosen's, again about 400 ms per sixteenth note or 38 beats per minute. It shows pronounced initial lengthening (bar 1) as well as an extended final two-stage *ritardando* (bar 8). Significant *ritardandi* also occur halfway through bars 2 and 4. The salient melodic motive in this variation consists of an 8-note sequence which first ascends by a fourth and then descends by a fifth in stepwise motion, ending on a strong beat. It is stated four times in bars 1–2. The first three statements are superimposed on descending chromatic steps in the bass which reach the dominant on the third beat of bar 2 and then resolve to the tonic. The fourth state-

<sup>8</sup> The ordinate is scaled logarithmically in order to make expressive deviations at different tempos comparable, on the assumption that they are roughly proportional to the basic tempo (see Repp, 1994a), and also to reduce the graphic excursion of large *ritardandi*. Note that a slowing of tempo corresponds to an upward excursion in the graph.



## Example 2:

## Variatio 21. Canone alla Settima

The image displays four systems of musical notation for a piano piece. Each system consists of a grand staff with a treble clef on the upper staff and a bass clef on the lower staff. The key signature is G minor (two flats) and the time signature is 3/4. The first system shows the beginning of the piece with a 7-measure rest in the treble staff. The second system continues the melodic and harmonic development. The third system features a prominent dissonance in the treble staff. The fourth system concludes the piece with a final cadence.

ment thus has a different emotional character: Whereas the first three seem to convey weariness or fatigue, the fourth seems lighter and relieved, as if a heavy weight had been deposited on the third beat of bar 2. In bar 4, something else occurs: A statement of a modified version of the 8-note motive leads to a striking unresolved dissonance, after which the modified motive (now with an extended prefix) recurs in inverted form. Clynes emphasizes the dissonance, especially in his repeat. Even more than in Variation 6, he slows down in the repeat and increases the expressive modulations during bars 1–4.

The difference between the two renditions is less pronounced in bars 5–8; in fact, they are very similar. A curious local phenomenon here is the very short second inter-onset interval in the third beat of bar 6, which occurs in the left hand, following a short trill in the right hand, perhaps to compensate for the lengthening associated with the trill. The local lengthening on the first beat of bar 6 is also caused by a trill but is not followed by a compensational maneuver. The final two-stage *ritardando* is explained by the fact that the alto voice

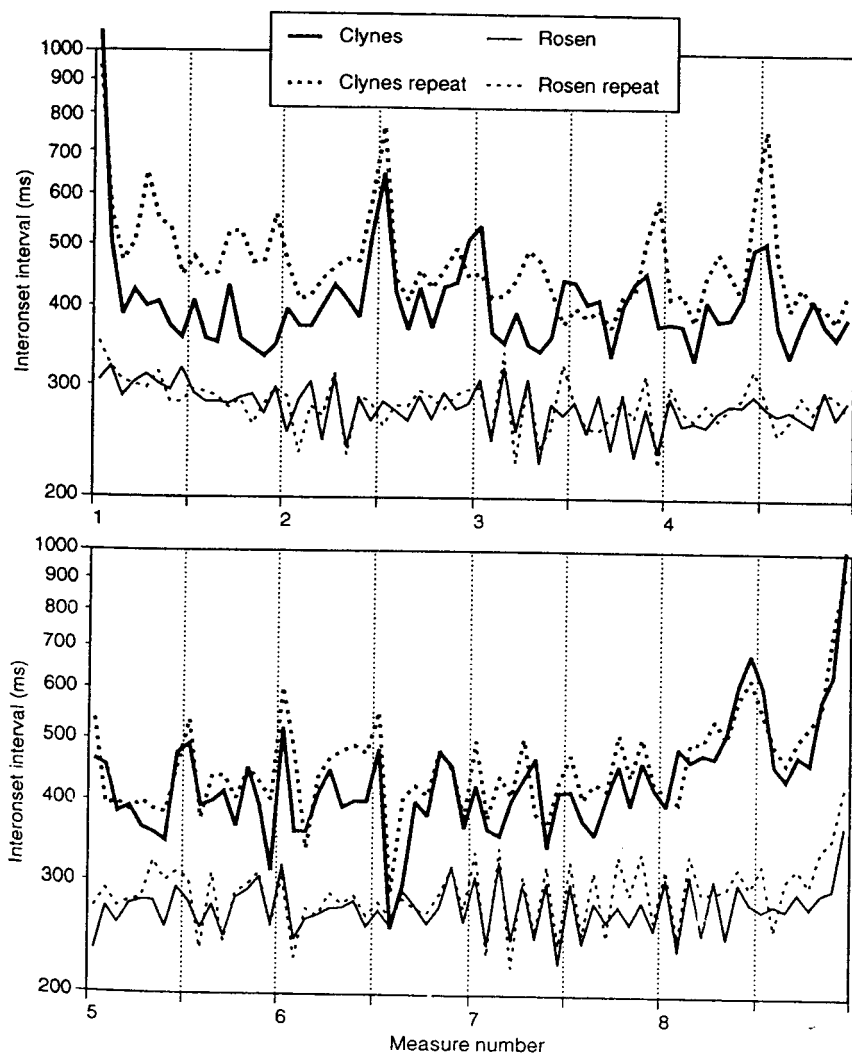


Fig. 2. Expressive timing profiles of Manfred Clynes and Charles Rosen.

ends on the third beat of bar 8, whereas the soprano voice, being out of phase by two beats, goes on to resolve to the dominant (the local tonic) and also changes the mode from minor to major, supported by the bass voice. All these agogic variations are of course supported by—or, rather, serve to pace—Clynes' exquisite dynamic shaping, which cannot be conveyed here graphically.

**Aria.** Finally, I turn to the Aria in G major as the third excerpt to be considered. Even though it opens the work, I saved its discussion for the end

Example 3:

ARIA.

The musical score for Example 3, titled 'ARIA', is presented in four systems. It is written in G major (one sharp) and 3/4 time. The first system shows a melodic line in the treble clef and a supporting bass line. The second system features more complex rhythmic patterns in both hands. The third system continues the melodic development. The fourth system concludes with a final cadence. The score includes various musical notations such as slurs, accents, and dynamic markings.

because of its greater rhythmic complexity.<sup>9</sup> It is in 3/4 meter and is divided into two 16-bar sections with repeats; again, I will examine only the first section here (Example 3). The richly ornamented melody contains a number of thirty-second notes, grace notes, and *appoggiature*, which were ignored in the present analysis unless they were played metrically as sixteenth or eighth notes. Timing was measured at the sixteenth-note level. Intervals longer than a sixteenth note were normalized (i.e., divided by the number of sixteenth notes they contain) and graphed as plateaus extending over their nominal duration along the x-axis. For comparison with Clynes' performance, that of Glenn Gould [1981] was selected. The data are shown in Figure 3 (p. 82).

Gould's performance is very slow and relatively unmodulated. He does not take the repeat. The first three bars seem to be at a somewhat faster tempo than the remainder, which moves in the vicinity of 500 ms per sixteenth note, or 30 quarter-note beats per second. On closer inspection, there is a systematic pattern to the agogic variation: Temporal shapes comprising a brief *accelerando* followed by a longer *ritardando* occupy bars 1-2, 3-4, 9-10, 11-12, 13-14 (in part), 14-15, and 16. Each of these segments corresponds to half a phrase, bar 16 to an extension of the final cadence. Only bars 5-8 are relatively rigid, but with a *ritardando* at the end of bar 7. Gould's timing thus can be seen to follow the phrase structure very closely, which is consistent with the structure-oriented impression that his performance makes on the listener.

Clynes' performance, by contrast, is extremely modulated, so much so that it is difficult to assign any basic tempo to it. My best guess would be that it is somewhere around 300 ms per sixteenth note, or 50 beats per minute, on the assumption that most expressive deviations are lengthenings. Clynes takes the repeat and is amazingly consistent here; the two renditions are very nearly identical. This demonstrates that his very complex timing pattern is governed by a carefully worked out plan.<sup>10</sup> Rather than giving half-phrases a simple shape, Clynes tends to break them up, or rather pivots them on an expressive lengthening of the central sixteenth-note anacrusis to the following downbeat. Sharp "spikes" associated with this anacrusis can be seen at the ends of bars 3, 7, 9, 13, and 14, where it precedes another sixteenth note, while narrow peaks including the downbeat (here, an eighth note) occur at the onsets of bars 2, 6, and 12. This salient expressive device and the resulting local *ritardandi* and *accelerandi* account for a substantial part of the timing variation in Clynes' performance.

<sup>9</sup> Of course, the *Aria* also returns at the end of the work. However, my measurements were made on the opening *Aria*.

<sup>10</sup> I do not mean to imply that every deviation is consciously planned. Rather, the timing profile represents the replicable interaction between a musical structure and an exquisitely sensitive organism.

Other noteworthy features in Clynes' performance are the following: In bars 1, 5, and 9, two successive quarter notes of the same pitch occur phrase-initially; Clynes always shortens the second note relative to the first. This tendency is magnified in bar 3, where the second note, ornamented with a trill, is shortened dramatically, together with the following two notes. In bar 7, there is an enormous *ritardando* which brings the musical motion

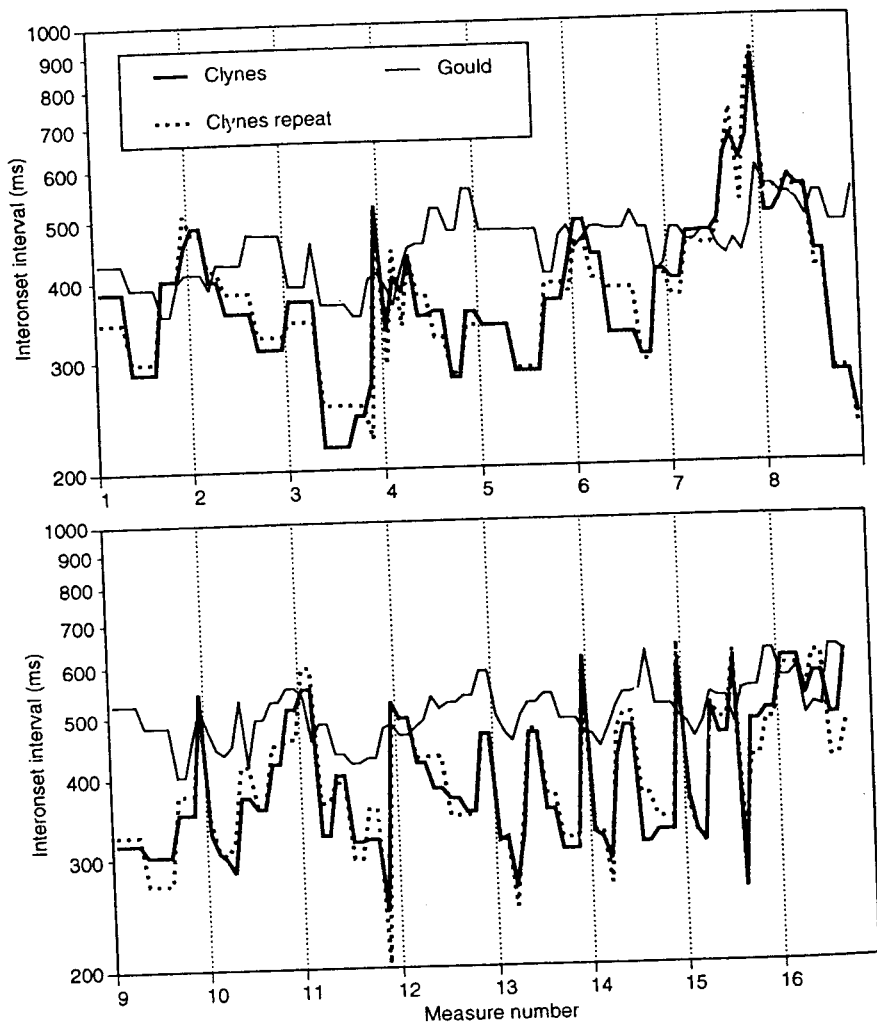


Fig. 3. Expressive timing profiles of the opening Aria (first half), as played by Manfred Clynes and Glenn Gould (CBS Masterworks MK 37779 [1981]).

almost to a standstill. This is followed by an equally dramatic acceleration in bar 8, which leads into the next phrase. The emotional atmosphere I sense throughout is one of love, perhaps even devotion.<sup>11</sup> In bar 10, a pronounced *ritardando* leads to the arpeggiated chord at the beginning of bar 11, which is executed with great tenderness. In bars 13–16, each half-bar motive is set off from the next one by final lengthening. There is no *ritardando* at the end of the section, though the local tempo is slow (equal to Gould's here).

### Conclusion

All three excerpts discussed illustrate the extraordinary sensitivity and flexibility of Clynes' performances, whose emotional impact is further enhanced by a masterful use of dynamics that unfortunately cannot be conveyed here. The other pianists' performances, by comparison, seem relatively rigid and unimaginative in their timing. Of course, their dynamics and timbres must also be taken into consideration, and in Gould's case the rigidity is clearly intentional, as is also evident in his carefully measured ornaments.<sup>12</sup> Surely, there will be some who will shake their head and say that rubato of the extent seen in Clynes' performance is inappropriate for Bach, not in style, Romantic, or inauthentic. Here Richard Taruskin, the leading critic of the notion of historical "authenticity" may be quoted. Taruskin has argued strongly that true authenticity is "founded to an unprecedented degree on personal conviction and on individual response to individual pieces" (Taruskin, 1995, p. 77). From this perspective, with which I wholeheartedly agree, Clynes is one of the most authentic musicians alive. His performances have emotional power and conviction, and a listener with an open heart and mind is carried along by them as if by a strong current. In today's world of technically flawless but often emotionally impoverished performances, Clynes' art stands like a beacon, reminding us of what music can yield when it is tended with love and care.

### Acknowledgment

During preparation of this paper, the author was supported by NIH grant MH-51230. I am grateful to Janet Handers-Powers and Lisa Robinson for helpful comments on an earlier draft. Most of the commercial recordings of Bach's *Goldberg Variations* were loaned from the Yale Music Library. Address correspondence to Bruno H. Repp, Haskins Laboratories, 270 Crown Street, New Haven, CT 06511-6695; e-mail: repp@haskins.yale.edu

<sup>11</sup> It seems apt, though it can hardly have been Clynes' intention, that the timing profile of bars 1–8 resembles the silhouette of a medieval town with several gabled houses and two Gothic churches, one at a river (bars 3–4) and the other one on a mountain (bars 7–8). Gould's profile provides an appropriate counterpoint in the third dimension, lending depth to the illusion.

<sup>12</sup> Gould plays grace notes and trills metrically, whereas Clynes usually shortens grace notes and plays trills more freely.

### References

- Clynes, M. (1977). *Sentics: The Touch of the Emotions*. New York: Doubleday. (Reprinted by Prism Press [Bridport, Dorset, UK] in 1989.)
- Clynes, M. (1983). Expressive microstructure in music, linked to living qualities. In J. Sundberg (ed.), *Studies of Music Performance* (pp. 76–186). Stockholm: Royal Swedish Academy of Music.
- Clynes, M. (1990). Some guidelines for the synthesis and testing of pulse microstructure in relation to musical meaning. *Music Perception*, 7, 403–421.
- Clynes, M. (1994). Comments on “Patterns of expressive timing in performances of a Beethoven minuet by nineteen famous pianists” [J. Acoust. Soc. Am. 88, 622–641 (1990)]. *Journal of the Acoustical Society of America*, 96, 1174–1178.
- Clynes, M. (1995). Microstructural musical linguistics: Composers’ pulses are liked most by the best musicians. *Cognition*, 55, 269–310.
- Repp, B. H. (1989). Expressive microstructure in music: A preliminary perceptual assessment of four composers’ “pulses.” *Music Perception*, 6, 243–274.
- Repp, B. H. (1990a). Composers’ pulses: Science or art? *Music Perception*, 7, 423–434.
- Repp, B. H. (1990b). Further perceptual evaluations of pulse microstructure in computer performances of classical piano music. *Music Perception*, 8, 1–33.
- Repp, B. H. (1990c). Patterns of expressive timing in performances of a Beethoven minuet by nineteen famous pianists. *Journal of the Acoustical Society of America*, 88, 622–641.
- Repp, B. H. (1994a). Relational invariance of expressive microstructure across global tempo changes in music performance: An exploratory study. *Psychological Research*, 56, 269–284.
- Repp, B. H. (1994b). Response to “Comments on ‘Patterns of expressive timing in performances of a Beethoven minuet by nineteen famous pianists’” [J. Acoust. Soc. Am. 96, 1174–1178 (1994)]. *Journal of the Acoustical Society of America*, 96, 1179–1181.
- Seashore, C. E. (1936) (ed.). *Objective analysis of musical performance*. Iowa City, IA: The University Press.
- Taruskin, R. (1995). *Text and Act*. New York: Oxford University Press.