Errors in Music Copying: A Synchronic Examination

George Asabre Maclean[1], Emmanuel Obed Acquah[2]

[1,2]*Department of Music Education, University of Education, Winneba, Ghana*

Abstract: **The proliferation of choral groups and the growth of choral musical performances in Ghana have resulted in many gathering of repertoire among the groups, thereby, encouraging music copying practice to create such archives. This practice has exposed the far-reaching effects of errors made in the attempt to write a new musical piece, re-write an existing musical score or score an unwritten tune using either pencil and manuscript or computer technologies. Using exploratory bibliographic research design, 4 musical pieces were purposively and randomly sampled and analysed for wrong placement of pitches on the musical staff, omission of important indications for performance, misleading performance directions or indications and wrong rhythm notation. This phenomenon was examined by using score study in printed sheets and published music books. There is usually direct substitution effect as much as the intention of the composer and performance of the music are concerned. It is therefore recommended that copyists of musical scores take time to verify the originality of the scores in order to reduce errors considerably for distribution, sharing and storage.**

Key words: **music copying, musical score, transcription.**

I. INTRODUCTION

One of the most ways music is shared is the social media where on various platforms, people request for the scores of particular music and quickly, they get a positive response. The widespread of these scripts has resulted in distribution of duplicated scripts which mostly have errors. These errors may show in the text or the lyrics, notes, rhythm, melody and harmony. It may include wrong placement of pitches on the musical staff, omission of important indications for performance, misleading performance directions or indications, wrong rhythm notation, wrong transcription from staff to sol-fa notation, wrong indication of pitches in sol-fa notation, improper text assignment to musical notes as well as misleading text inscription. Indeed, the decision to copy a piece of music arises out of varied reasons. 1. The score of a musical piece may not be in existence and, therefore, a musician or a music copyist may listen to it from a recorded CD or from someone else and notate the music. 2. |The faded and tattered nature of an old musical score can also give cause to the copying of the music to bring it to a more legible and stronger state. 3. The need to orchestrate a musical piece for a different medium; for instance, a choral piece for a symphony orchestra or a military band. 4. The need to transcribe a score from staff notation to tonic sol-fa and vice versa to take care of different music literacy groups. In each of the instances cited, it would be expected that the copying of the music would end up maintaining the music as original as first written or performed by the composer or owner of the work. It does not matter the status of the copyist as amateur or professional, these errors still emanate. Unfortunately, there is little or no attention on musical scripts copying in music scholarship but the recent incidence of musical scripts widespread needs much to be desired.

Music performers, analysts, critics, teachers, and students depend largely on written music to accomplish their aims on what is being studied or taught from the piece. According to Wright et al. (1997), the score sheet provides the user with a high level visual representation of the music. It represents the entire composition in a fairly conventional manner (Abrams et al., 1999). The detection of numerous conspicuous errors in a score in hand may call for the search of another copy of the music; otherwise, users of sheet music deal with the musical score in hand, interpreting it mostly according to what is notated in order to present the composer's intentions as closely as possible (Adkins, 1958). The problem, however, arises when the musical score has errors which may not be easily detected and thus, presents it as very authentic, original, and flawless. The consumption of such a score with 'minimal' hidden errors undetected can lead to a misrepresentation of the music in form, melody, harmony, rhythm, and text interpretation.

What happens is that users of musical scores may occasionally detect some errors in scores they encounter and use their musicianship, previous experience in other copies of the musical piece, comparison with the staff or sol-fa notation (depending on which may contain the error), and knowledge in the language in which the musical text is written to correct them. These errors have ripple effect on musical analysis, teaching, learning, and performance of such musical pieces. This paper, thus, seeks to fill the vacuity created in the literature on musical works and their copying which have overly been explained in terms of the digital sharing and downloading of musical works and concentrated on same and their copyright issues. It discusses the implications of the identified errors made by music copyists no matter how insignificant or negligible one may consider them.

II. REVIEW OF RELATED LITERATURE

Music is consumed through listening and other means that integrate into our personal and social lives. It cuts across the way we experience it in terms of distribution, performances and sharing. Experiencing the original music, either by listening or score reading is significant to unravel the intent of the composer. The main scholarship of music copying has concentrated much on the digital sharing and copying of musical works and software for writing or creating music. However, there is little empirical data in the literature on sheet music copying. Blackburn (2006), for instance, looked at how

the availability of copies to consumers has competing effects on sales that are heterogeneous across producers:

> the two main competing effects that the trading of copies has on the sales of originals; the exchange of copies generates knowledge about the existence (or quality) of a product, thus increasing sales of originals while at the same time serving as a substitute for sales, thus decreasing sales. Therefore, the net impact of the "sharing" of copies depends on the relative magnitudes of these two effects, and will depend on the characteristics of the particular good in question, and thus can and will vary within industries. (p. 2)

In another study Brown et al. (2006) investigated the sharing of music by conventional means as compared to sharing online:

> Despite the attention given to internet sharing, physical music sharing is an activity that has been commonplace for many years – sharing of music between individuals through copied tapes and CDs. In this paper, we investigate both sharing with conventional media and compare it to online music sharing. We situate music copying in general music listening practices, looking at how individuals not only share music but also how that sharing is affected by their listening practices. (p. 37)

A recent study by Negus et al. (2017) considered copying as being an enduring feature of music making but the focus of the authors was to explore the issues that arise from popular music practice and the copying of musical works either transcribed from compositions or from existing songs. Negus et al. (2017) then commented on the two practice and how it has affected the music industry:

> the two practices are connected because circulated music (whether recordings or printed pages) has provided an impetus for the acquisition of musical skills, exchange of ideas and accumulation of knowledge. Yet, copying has increasingly been perceived as a problem by music industry trade organisations seeking to profit from selling commodities to consumers, while maintaining a legal regulatory framework premised on intellectual property. (p. 364)

It could be deduced from the studies of Brown et al. (2006) and Negus et al. (2017) that the copied musical works they discussed were those that had been done either as complete score sheets or recorded as audio or video and shared by the possible means by which such works could be circulated – physically, through copied tapes, compact discs (CDs), and online. Whilst musical works shared physically are likely to be notated or transcribed and can be easily studied or analysed visually, recorded performances of the same works made available for copying either as audio or video may only be scrutinized and criticized by listening and paying attention to the entire content or to particular points of interest to the listener or critic. This is especially if the musical work was not scored by the composer and therefore can be commented on only by listening to it. On the other hand, notated music makes it possible for the music to be 'seen' and mentally 'heard' even before it is performed and or during its performance. Its writing or notation by the composer or a copyist will therefore be expected to be without flaws as they can misrepresent the intents of the composer. In this regard, Bent (1994) talked about musical score and its visual presentation:

> in one sense, music exists only in sound, but paradoxically, sound is its least stable element. But also, visual presentation may be an important or essential ingredient, even to the extent of constituting part of the structure or at least of the aesthetic. And there are other senses in which the music exists in dimensions (e.g. numerical) that are not immediately audible. Access to a work could be through sound, through sight, and through understanding of form and structure, then as now. There is obviously a special relationship between the work and its physical presentation both in sound and in notation. The appearance of the notation affects the way one reads the music. (p. 373)

Similarly, Isaacson (2005) corroborated what Bent (1994) talked about musical scores as a visual communication tool:

> Though music is fundamentally an aural phenomenon, we very often communicate about music through visual means. A musical picture converts the unidirectional time of a piece of music into a spatially represented dimension. This allows us to view a musical work as if it were a physical object–we can examine it in any order, at any pace, comparing temporally detached events with a simple flit of the eye. (p. 389)

The assertion by Isaacson (2005) on the physical appearance of music for its interpretation and examination suggests that the user or bearer of a musical score assesses the score's content primarily by what is seen or written. A typical analogy is drawn from language where Sloboda (1976) gave an account on reading phenomenon:

> similar to "proof-reader's error" in language reading, which corroborates the evidence that experienced musicians read in units. When reading a book, one reads in context and thus may skip over simple typographical errors. The mind infers the meaning of the sentence by taking in the key words and the eyes skip over less important details.

Sloboda (1976) again presented results of pianists who were asked to sight-read a piece of music that contained carefully implanted notational errors:

All subjects "corrected" some of the mistakes; that is, they played notes that would normally have been written rather than the errors that were implanted. On a second performance of the piece, the number of proof-reader's errors actually increased slightly as the subjects made even more "corrections. (p. 467)

He drew the conclusion that more familiarity with the music allowed for greater reliance on units rather than specific details. Also, notational errors were less likely to be detected in the middle of phrases, indicating that subjects made more inferences about middles of phrases than about beginnings or endings. Concluding further, he indicated that these inferences were based on structural elements of the music. This phenomenon is critically contextualized in musical score analysis and performance. With regards to this phenomenon, Bent (1994) considered the relationship between a musical work and its physical presentation in both sound and notation as special. According to him, the extent to which the notation's appearance affects how one reads the music gives credence to our claim that an error in the score caused by a copyist may also lead to a wrong interpretation and assessment by its users.

III. METHODOLOGY

We used exploratory bibliographic analysis which is situated within the qualitative research approach. According to Acquah (2018), citing Hardesty et al. (1989), bibliographic approach was instructional and used by academic libraries dating to at least the 1880s to enhance the role of the academic library in the educational process. As Farber (1992) postulated, proponents point to the steady, perhaps dramatic, movement of. So by the exploratory bibliographic design, the study tilted bibliographic instruction and its adoption by librarians. It therefore has to do with the use of books and other written materials containing the right source of information for the research. The pieces selected were explored from the books to gain new insights, discover new ideas in order to increase knowledge of the phenomenon as Burns et al. Groove (2004) put forwardtowards exploring and compiling musical pieces which had been copied wrongly and compared with the original scores as found appropriate. Some of the books from which the scores were selected are Methodist Hymn Book, Ghana Praise, Methodist Praise, Songs for Christmas (Volume 1 Ghanaian Composers) No. 23 as well as some song sheets. In all, 18 musical pieces with various errors were detected and sampled as below:

Table 1: Sample of musical pieces with errors as a result of wrong copying

S/N	Title	Error Detected	Source Book
1.	Infant Praise	Wrong placement of pitches on the musical staff,	Methodist Hymn Book 837 (Staff)
2.	*Mesi me dan*	Misleading performance indications	Mesi Me Dan (Upon the Rock)
3	He is Able	Omission of important indications	Mesi Me Dan (Upon the Rock)

		for performance,	
4.	Yɛn ara asase ni	Wrong rhythm notatiom	Ghana Praise
5.	Yɛyɛ ahene baasa	Wrong rhythm notatiom	Ghana Praise
6.	Sinners Jesus will receive (Christ Receiveth)	Wrong transcription from staff to sol-fa notation	Methodist Hymn Book 322 (Solfa)
7.	Father, I dare believe (Ripon)	Wrong transcription from staff to sol-fa notation,	Methodist Hymn Book 564 (Solfa)
8.	Hwehwɛ Me Mu	Misleading text inscription	Song sheet
9.	We Wanna Thank You	Misleading performance indications	Mesi Me Dan (Upon the Rock)
10.	Tweduampon Ne Yen Nam	Wrong indication of pitches in sol-fa notation	Mesi Me Dan (Upon the Rock)
11.	Willevlut	Misleading performance directions or indications	Methodist Praise 1 (No. 206)
12.	Dead March in Saul (Hom Ntaa Dzinn)	Improper text assignment to musical notes	Methodist Praise 1 (No.233)
13.	Ɔsahen Yesu	Misleading performance directions or indications	Songs for Christmas (Volume 1 Ghanaian Composers) No. 23
14.	Ɔawo Agyenkwa N'ama Hɛn	Wrong rhythm notation	Songs for Christmas (Volume 1 Ghanaian Composers) – Solfa Edition No. 49
15	Yesu Aseda	Wrong pitch writing	Song Sheet
16	Adwontow ye anigye	Wrong note values	Song Sheet
17	Asomdwee Hen	Wrong note values	Song Sheet
18	Olivet to Calvary	Wrong note values	Song Sheet

The first five pieces in table 1 were systematically selected for analysis on

1. Wrong pitch placement
2. Misleading performance indications and
3. Wrong rhythm notation.

Table 2: Sampled pieces for analysis

S/N	Title	Error Detected
1.	Infant Praise	Wrong placement of pitches on the musical staff
2.	*Mesi me dan* (I shall build my house)	Misleading performance indications ε
3	He is Able	
4.	*Yɛn ara asase ni* (This is our own land)	Wrong rhythm notation
5.	*Yɛyɛ ahene baasa* (We are three kings)	

In analyzing the pieces, pictorial evidence of the explored pieces and the corresponding errors from the sheets and the books were used. As indicated earlier, the three errors in which the 5 sampled scripts were examined are wrong pitch

placement, misleading performance indication and wrong rhythm notation. The use of these three themes is a way of setting a path for further synchronic studies of musical scripts to detect other errors either mentioned in this paper or not mentioned at all.

IV. FINDINGS

4.1 Wrong pitch placement

"Infant Praise" (song 1) in both staff and tonic sol-fa notations were used to discuss wrong pitch placement. Wrong pitch

placement involves the placement of a note at a position– line or space - other than desired on the musical staff; for instance, erroneously placing a note on the second line of a musical staff when it is supposed to be on the first line, first space, second space, or third line. An error of this nature then changes the musical line of the voice or instrument for which the music is written and eventually affects the performance either in the voice or instrument alone or affect the harmony when performed with other voices or instruments. Figure 1 below is a pictorial evidence of the "infant Praise" from the Methodist Hymn Book 837 (MHB 837).
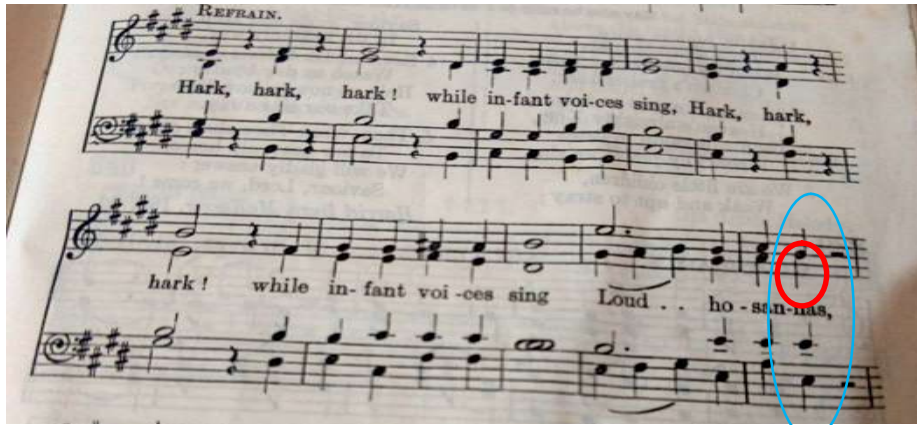
Figure 1: Passage in Infant Praise with copying error in Alto part (small circled)

Evidence of the error shown in Figure 1 is given,first, in the eventual chord created (long circled blue) which has the 3rd of the chord omitted; secondly, in other copies or printing of the same tune in other hymn books and sheet music, and thirdly, in the tonic sol-fa transcription of the passage shown.

Figure 2 shows the same passage of the tune as found at No. 163 in Hymns and Psalms whilst Figure 3 shows what is supposed to be the tonic sol-fa transcription of the tune as shown in Figure 1 from the Methodist Hymn Book with tunes (Tonic Sol-fa).
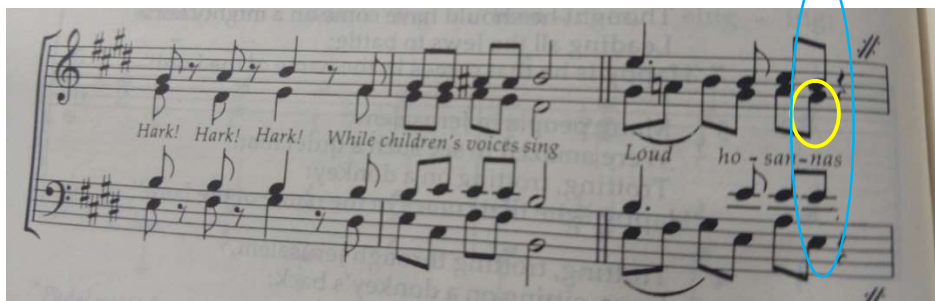

Figure 2: Passage in Infant Praise with correct copying in Alto part (small circled)as found in Hymns and Psalms (No. 163)
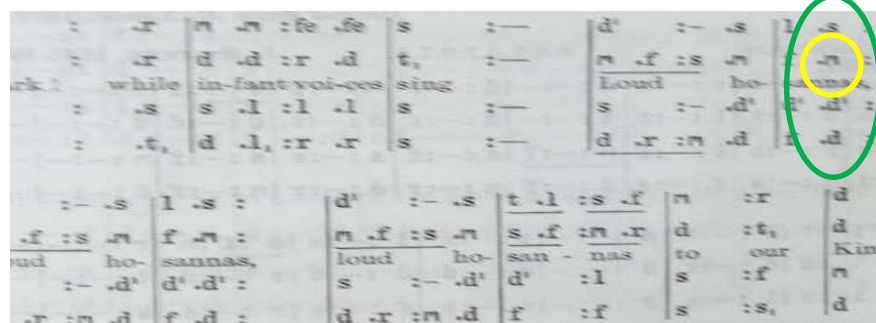

Figure 3: Sol-fa transcription of Infant Praise excerpt in Figure 4 as found in the Methodist Hymn Book (p. 737)

4.2 Misleading performance indications

In this analysis, songs 2 and 3 were used (He is able & Mesi me dan). Errors in this respect are seen in both the omission and the wrongful insertion of indications for performance or interpretation of the musical score. Indications including the various repetition signs such as D.C. - *Da Capo* (back to the beginning), D.S. - *Dal Segno* (back to the sign) are sometimes used wrongly by copyists which eventually changes or affect the form of the composition. There is also the omission of

repetition signs and the passages or portions where the performer is expected to repeat from. Figures 4 and 5 are excerpts depicting the omission of repetition indications in a transcription done by music copyist. In Figure 4, the copyist was supposed to give a "back to the sign" (*D.S.*) indication at the last bar for users of the score to repeat a section of the piece but this was omitted whilst Figure 5 also shows the omission of the sign from which the piece user was supposed to repeat from.
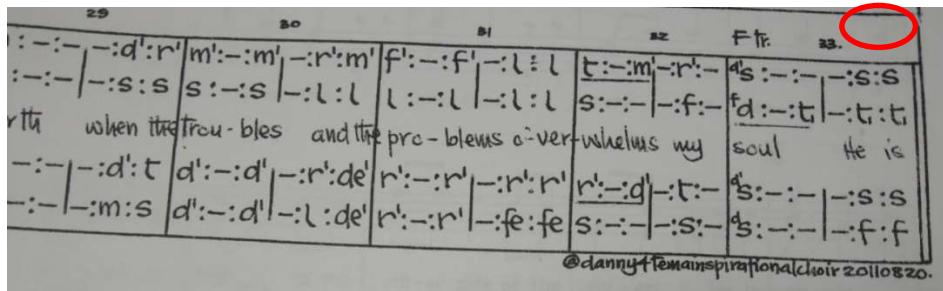

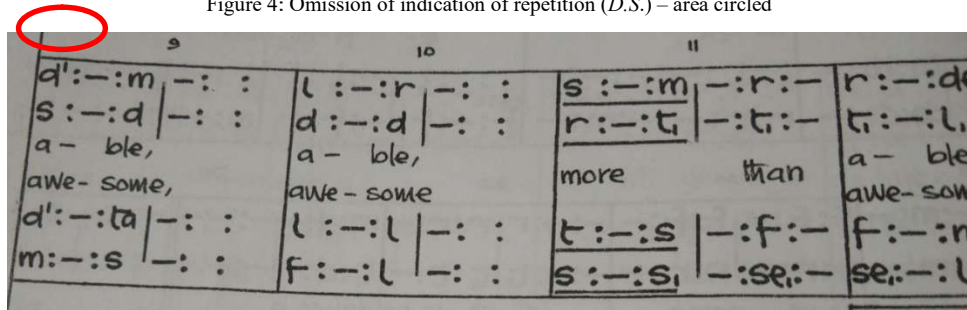Figure 4: Omission of indication of repetition (*D.S.*) – area circled

Figure 5: Omission of sign (𝄋) at beginning of repetition region

It could be seen from the last bar in Figure 4, which happens to be the last in the piece,that the end requires a passage to bring a better conclusion to the piece but the indication - *D.S.* - to go to the concluding passage is omitted by the copyist. Similarly, the beginning of Figure 5 which is supposed to be the passage to complete the composition is also without any sign to guide the performer. This, to a first time reader of the piece or one who has not heard the composition performed already, can pose a challenge and may require the user of the piece to spend some time locating the appropriate passage to go back to. Such omissions, therefore, may render copied compositions lack proper performance direction.

Another aspect of music copying error that can be described as misleading is the wrongful interpretation and inability of

music copyists to distinguish between slurs and ties used between pitches and rhythm notes respectively. Since slurs and ties are all curved lines between musical notes, a copyist's inability to distinguish between them when scoring in musical staff notation and or during transcription, especially from staff to sol-fa notation can result in a deceptive presentation of passages in the music scored or copied. Whilst slurs are used between two or more different pitches, ties are used between successive notes of the same pitch in order to extend the duration of the first among the tied notes. Examples 1 and 2 below provide illustrations of the use of slurs and ties respectively.

Example 1: Illustration of slurs between pitches

Example 2: Illustration of ties between notes

Thus, in transcribing them in sol-fa notation, their indications or illustrations also differ. Notes slurred are underlined with their word or syllable assigned to the first of the slurred notes. Unfortunately, some music copyists wrongly use the illustration of slurring in *sol-fa* notation also for tied notes and

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this creates deceptive and "unsingable" passages. The term "unsingable" is used because two notes of the same pitch cannot be slurred for a syllable when performing a piece with text. Figures 6 and 7 provide evidence to the narrative just given
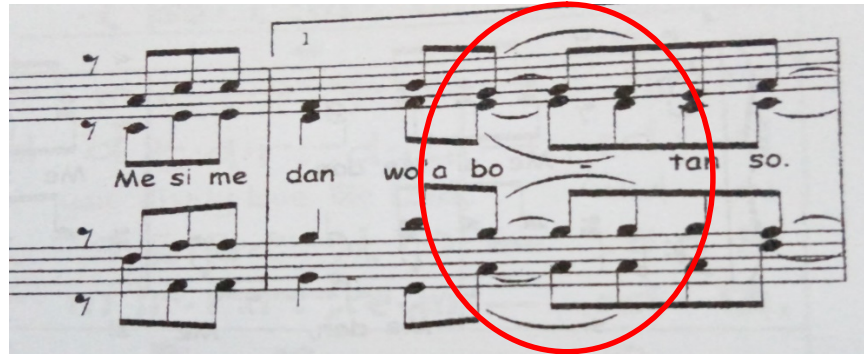
Figure 6: Illustration of wrong use of slurs
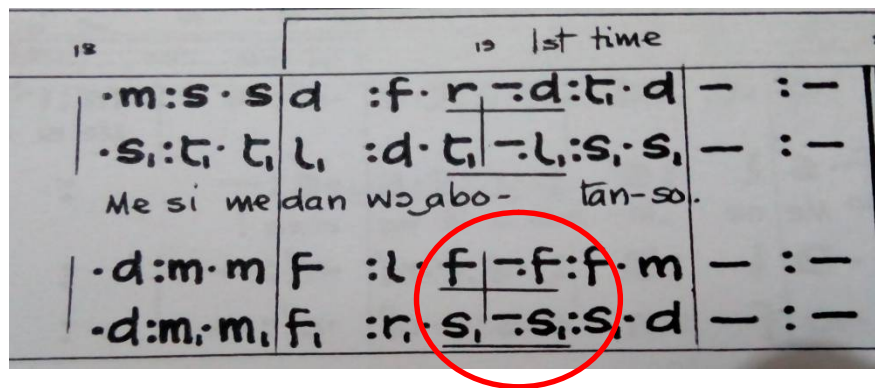
Figure 7: Sol-fa transcription of passage in Figure 6

A study of the excerpt in Figure 6 depicts the use of slurs and ties but a thorough observation of their use, vis-à-vis the insight given on them earlier, shows that they have not all been appropriately used in the passage and this eventually affected the sol-fa transcription of the passage. It can be observed from the circled region in Figure 6 that the short curved lines are used as ties and the long ones as slurs and they have been used in all the four parts between notes and pitches set to the syllable *"bo"*. Whereas the application of the slurs and ties to the notes and the text or syllable in the soprano and alto parts are appropriately done, the slur indication or application in the tenor and bass parts could be said to be unnecessary or misapplied. Instead of the three notes slurred in those parts, the tie could have been extended to the third note since there was no change in pitch and notes of the same pitch need not be slurred. The error in the staff notation is thus replicated in the sol-fa transcription as shown in Figure 7.

Similarly, the omission of slur indications in the staff notation to sol-fa transcription can also present passages with such errors in a different light. Such omission makes the pitches

slurred appear to represent different words or syllables in the text of the piece.

Other misleading indications could be the inappropriate use of dynamic and tempo indications. An example in this discussion is the use of a musical style or genre as a tempo indication; for instance, *Tempo di Marcia, Tempo di Agbadza, Tempo di Reggae,* etc. Whereas the term 'tempo' refers to the speed at which a piece of music is performed (Kennedy and Kennedy, 2007), which could be very slow, at a walking pace, moderate pace, fast, very fast, or very, very fast, the paper argues here that the use of the term to suggest the style in which the music is composed or should be performed is not appropriate enough as the musical style mentioned can assume varied tempi.

4.3 Wrong Rhythm Notation

Another critical aspect of music writing or composition is the use of rhythm. The use of a different rhythm for the same pitches can result in the creation of an entirely new composition. The precise and desired notation of rhythm can pose a great challenge to copyists and composers alike. Thus, a composer may sometimes have a rhythmic intent but may

notate it wrongly himself; and in other cases, although the composer may originally notate correctly, a copying or rescoring of the music by a copyist can result in errors in the music in terms of rhythm notation. Instances of this problem include the use of wrong musical notes, the omission or addition of dots against some notes in a bar which may let the bar appear incomplete or have more beats than necessary without any indication that there is a change in time signature.

Therefore, a wrong notation of the desired rhythm by a composer or music copyist makes an interpreter of the work spend time wondering exactly which notes to alter to make the rhythm correct at the point of error. A more serious and far reaching implication is the incongruity that comes to exist between the composer's desire for the music's performance and what exists on paper by way of notation. We are using songs 4 and 5 (*Yɛn ara asase ni* and *Yɛyɛ ahene baasa* to illustrate this copying anomaly. Figures 8 and 9 are illustrations of the two songs published in "Ghana Praise", but given a different interpretation by way of performance by the composers themselves.

Figure 8: Image of musical score of "Yɛn Ara Asase Ni"

Figure 9: Image of score of "Yɛyɛ Ahene Baasa"

Whilst the composer's desired rhythm in Figure 8 is shown in Example 10, Example 11 shows the composer's intention of how Figure 9 should be performed as circled.

Yɛn Ara Asaase Ni

Figure 10: Correct rhythm notation of *Yɛn ara asase ni*

Yɛyɛ Ahene Baasa

Figure 11: Composer's intention of the rhythmic interpretation of *Yɛyɛ Ahene Baasa*

V. CONCLUSION

In this paper, we discussed various errors that are made in copying music or duplicating scores either by hand written or computer assisted. We drew implications of these errors on musical interpretation and analysis, the intent of the composer and performance. It concludes that the errors identified, no matter how insignificant or viewed, have far reaching implications for music analytical discourse, teaching, learning, and performance of such music. It is worth stating that it is unrealistic to believe that the effects of wrong copying would be constant if copyists are not conscious of what they copy or do not crosscheck original scripts before copying. Cross checking is very important to establish authenticity of copied sheet music. This suggests that it is likely to see more negative effects of sharing of copied scores. Although choral groups benefit in gathering repertoire through copying, wrong copying mar the beauty of the intention of the composer. It is also recommended that those who share musical files, especially, on the social media will share the original scores to reduce existence of duplicated musical scripts. It does not only affect uniformity in performances of such pieces but does not represent the mind of the composer in terms text or the lyrics, notes, rhythm, melody and harmony.

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