A new derivation shows Schubert learning thematic work from a Beethoven sonata

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Abstract: A newly discovered derivation of Schubert from Beethoven is presented: the piano sonata in B major D.575 IV from the piano sonata in A-flat major Op.26 II. A method for finding thematic derivations is first outlined. The present derivation shows Schubert learning to compose thematic material by following Beethoven’s example. The article increases our knowledge of Schubert after his early mastery of vocal composition, as he earnestly worked to learn the piano solo side of his craft. He needed to master three main areas: logical manipulation of abstract musical material rather than text-based expression, sonata-allegro and related forms rather than song forms, and writing for the physical technique of solo piano performance rather than for voice with piano accompaniment. He had apparently received little or no training in those areas, and it is very instructive to see him making his own way.

Keywords: Schubert, Beethoven, derivation, theme, sonata-allegro form.
Mastering Lieder (German art song) came very easily to Schubert, and in his youth he had within a few years become perhaps the greatest of all composers in that genre. However, writing purely piano music, especially in sonata-allegro form, was much less natural for him: that required the logical manipulation of abstract elements, rather than allowing an expressive text to provide the impulse for the setting. Writing for piano solo also meant using a more abstract or intellectual musical instrument, by comparison with the other solo instruments, including the human voice, which are inherently more expressive (NEUHAUS, 1973, p. 64). He had little or no formal instruction either in abstract composition, in writing for piano solo, or in sonata-allegro form, so he embarked upon a long and laborious process of teaching himself (KÖLTZSCH, 1927, passim). He followed Beethoven as his main model, although not his only model. A number of allusions to Beethoven’s works have been found (REID, 2013, passim), but the derivation reported here has apparently remained undiscovered (see KÖLTZSCH, 1927; CHO, 2013; and the vast Schubert literature), so a few words about finding derivations may be in order.

How can we find a derivation of a given theme from other music? Three stages can be distinguished. First, reduce the given theme to its essentials (there may be more than one conceivable way of doing so). Second, consider which features of the given theme may be the subject of derivation; the main such features in classical music are melody, rhythm, and harmony, allowing that other features such as texture, form or occasionally other special features may also play a part. Third, survey candidates among other themes arising from the previous two stages. Let us see how this procedure can be applied in the present case.²

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¹ The term sonata-allegro will refer here to the form of a single movement, whether allegro or not, while sonata-opus will refer to a multi-movement composition so named.

² It should be acknowledged that a certain amount of luck is needed in each of these stages. At present this work must be carried out by a human but, when a large number of reliably encoded digital scores are available, computer methods possibly involving AI (artificial intelligence) may be feasible, although whether that will produce better results remains to be seen.
1. Derivation of Schubert’s principal theme

Schubert’s movement D.575 IV, written in 1817, starts with its first theme (Example 1) but it is clear from what follows in mm. 3-12, including the texture, that the first two measures are merely preparatory to the theme itself, which therefore essentially begins at m. 3.

EXAMPLE 1 – Schubert D.575 IV mm. 1-8.

When searching for a model in this case it is important to recognise the merely preparatory function of those first two measures, for otherwise one might well focus more attention on them than they warrant (that would be an example of reducing the theme to its essentials in a way that turns out to be incorrect). That no doubt explains why KÖLTZSCH (1927, p. 89) mistakenly considered that a model might be found in just the first three notes of Beethoven’s Sonata Op.14/2 III (marked Scherzo but having rondo form) (Example 2),


although he qualified that derivation by adding “perhaps”. Further, after Schubert’s first section (mm. 3-6) follows a two-measure insertion (mm. 7-8) before the second section (mm. 9-12) appears. Thus the first section of Schubert’s theme may be considered to be essentially (Example 3):

EXAMPLE 3 – Schubert D.575 IV mm. 3-6.

[Music example]

Source: EPSTEIN (1888, p. 14 (56)).

It turns out that the right feature clues in this case are rhythm and melody, but not harmony. Focussing on those rhythmic and melodic elements and thinking of the most likely source of a model, which is the Beethoven piano sonatas, one arrives at the model Op. 26 II, composed in 1800-1801 and thus 16-17 years before the present Schubert work (Example 4):


[Music example]

Source: UNKNOWN-2 (1862, p. 8 (196)).

The rhythm matches exactly. The first three notes of the melody with scale degrees 1, 2, 3 match, and some modifications follow which will be discussed below.

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3 As far as I know, CHO (2013) is the only author other than KÖLTZSCH (1927) to have studied this movement closely in print, and Cho apparently neither sought nor found a model.

4 This is despite SOLOMON (1979, p.124) having written “The period from 1816 to ca. 1821 is largely marked by an avoidance of Beethovenian models...”. Compare also REID (2013): “In his later music, Schubert occasionally echoes motives from Beethoven works, including deliberate quotations as homage, but rarely seeks to imitate Beethoven’s style as such.”
I will mention, in passing, just one other example of a well-hidden derivation illustrating the present method (Example 5). There the melodic contour turns out to be the relevant feature. Again one component of the derivation happens to be a simple change of direction of a motif, in that case of the first two notes of the theme; and again a professional musicologist was led astray in his search for a model (NETTHEIM, 1993, p. 101, footnote 7).

EXAMPLE 5 – Top: Chopin, Fourth Ballade, Op. 52, m. 9; bottom: Bach, WTC, I/22, Fugue, mm. 1-3. (Realigned.)


2. Composition of Schubert’s principal theme

Having now settled upon Schubert’s model for his D.575 IV, we will examine how he composed his movement. To prepare for that study it will be helpful to be aware of the 23 other last movements (whether fourth or not, and whether for piano solo or not) that Schubert had already composed. Most were written in sonata-allegro form, even though some of the earliest ones were quite eccentric in form; that eccentricity may have resulted from Schubert’s having received no instruction in that form and having little knowledge of what was expected in it or, just conceivably, on account of his wilfully ignoring those expectations. Some were written in a rondo form or a combination of rondo and sonata-allegro and one, D537 III, has sonatina form (sonata-allegro without a development section). With that background I will now trace the composition of the present movement, acknowledging that some degree of speculation is needed because Schubert’s thoughts cannot be known with certainty.

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5 Deutsch catalogue numbers 18, 32, 36, 46, 68, 72, 74, 82, 87, 94, 112, 125, 173, 200, 384, 385, 417, 459A, 485, 537, 557, 568, 574. We have here an unusual opportunity because, apart from his very earliest years, Schubert did not destroy his efforts, even while realising that he had not yet achieved his aim; he thus left much more evidence of his learning process than have most composers.
The movement is fairly light-hearted and brisk, as last movements often are according to tradition and so, indeed, is the Allegretto of the piano sonata D.568 which Schubert had composed about two months earlier, as well as the Allegro vivace of the violin and piano sonata D.574 which he had composed even more recently. He continued his explorations of sonata-allegro form in a last movement, as he had done many times before. Needing some themes, he decided to base them on the material of Beethoven’s Sonata Op. 26, where the second-movement theme suited his purpose, even though Beethoven’s movement is a Scherzo, and is not in sonata-allegro form; as a result, Schubert could not learn anything about that form in this case, but he instead relied on, or experimented with, what he had already picked up about that form. Schubert could, however, try to learn about Beethoven’s way of handling thematic material in general, that is, more or less independently of the form of the movement. The key is B major, the same as for the present first movement.

Schubert evidently studied how Beethoven’s theme was put together, in an effort to learn from his example. There are innumerable ways any theme could be looked at and he had no teacher to point out what was most relevant here and how it works, so he just made use of some features that he particularly noticed. Beethoven’s music here has the effect of 6/4 metre, rather than the notated 3/4, so eight of his written measures make up a regular phrase – in this case not of four written measures but of four two-measure units or hypermeasures (CONE, 1968, p.40 etc.). Schubert divided Beethoven’s first four written measures into two portions, a and b (Example 6). Since the turning behaviour of motif b ends on its starting degree, it has the effect of confirming that degree in the listener’s mind; such a confirmatory motif is a standard compositional construction.

Beethoven used an initial three-note rising figure, and then stepped up a further two notes. Schubert used Beethoven’s rhythm throughout and started with the same three notes, but naturally he was not going to use Beethoven’s theme entirely unchanged. Accordingly, he then stepped down instead of up; that was his first departure from Beethoven’s theme, and it completes the first two (written) measures of Schubert’s first phrase. That was the most important modification of his model; while it may at first seem slight, it will have considerable ramifications. Beethoven put his next two sounding notes in an inner voice, while holding the top voice on for a following cadence.
with a turning figure. Schubert instead wrote a single-voice melody, bringing Beethoven’s inner voice into the top voice, while continuing the downward stepping; that was the second departure from his model. His last three notes complete the cadence just as Beethoven’s did. That ends Schubert’s four-measure unit. His first departure means that his theme has returned to the tonic degree after five notes, so that the cadence in m. 4 will now be on the tonic, rather than on the fifth degree. His second departure introduces a lilting rise of a fourth, with a different and rather pleasant character that he would make use of in what is to follow. His two-measure units, varied from Beethoven’s, are called A and B in Example 7. Schubert naturally followed through with those two departures later in his movement.

For the general specifications, he chose 3/8 to indicate a rather lighter effect than Beethoven’s 3/4 metre. Schubert clearly thought of his music as notated in half-measures, as Beethoven’s was, so that eight of Schubert’s written measures also make up a regular phrase and the felt metre is 6/8. A tempo of ‘Allegro giusto’ was more appropriate for his purpose than his model’s ‘Allegro molto’, and he began with the dynamic marking \textit{f} instead of \textit{p}. So now he could set down his first four measures (Example 7), together with the two preparatory measures as were seen in Example 1.

\textbf{EXAMPLE 6} – Beethoven Op. 26 II mm. 1-4, with portion labels.

Source: UNKNOWN-2 (1862, p. 8 (196)).

\footnote{Thus both Beethoven’s and Schubert’s movements are notated in “small measures”. The wider topic of effective or felt metre versus notated metre would require a separate paper (see again CONE, 1968, passim).}
Beethoven’s second half-phrase (Example 8) is his answer to his first half-phrase. The melody continues upward from the dominant, which is where his first half-phrase had ended, to the tonic. But Schubert’s first half-phrase had already settled on the lower tonic, so he provided two measures to reach the upper dominant (Example 1 mm. 7-8); those measures flow on readily from m. 6. From that point he continued to end the period on the tonic, in his case moving down whereas Beethoven had moved up. So now Schubert could write his second half-phrase (Example 9, the first four measures). Beethoven next reproduced his whole phrase while inserting a quarter-note which creates a four-note scalar group with notes of equal duration (Example 10); Schubert did not reproduce his own phrase, but he evidently kept those four-note scalar groups in mind for the future of his movement.

EXAMPLE 9 – Schubert D.575 IV mm. 9-14.

![Image of Schubert D.575 IV mm. 9-14]

Source: EPSTEIN (1888, p. 14 (56)).

EXAMPLE 10 – Beethoven Op. 26 II mm. 9-16.

![Image of Beethoven Op. 26 II mm. 9-16]

Source: UNKNOWN-2 (1862, p. 8 (196)).

Beethoven next wrote a long middle part to his theme (Example 11):

EXAMPLE 11 – Beethoven Op. 26 II mm. 17-20 . . . 41-44.

![Image of Beethoven Op. 26 II mm. 17-20 . . . 41-44]

Source: UNKNOWN-2 (1862, p. 8 (196)).

Schubert wrote a shorter middle part; again he provided a preparation (Example 9, the last two measures). Then he used Beethoven’s four-note scale fragment, taking it from the reproduction of his opening period which had been observed a moment ago (Example 12). He used D-major, which is not very far from the tonic B-major according to his view of tonalities, and provides tonal variety which he favoured. Beethoven next has a long passage which will lead into the reproduction of his first part; Schubert made his corresponding passage shorter, but still ending with repeated chords, now on the tonic minor (B-minor) rather than Beethoven’s dominant.
EXAMPLE 12 – Schubert D.575 IV middle part of first theme, mm. 15-28.

Source: EPSTEIN (1888, p. 14 (56)).

In his reproduction of the opening part, Beethoven added an impressive contrapuntal line, but Schubert did not attempt that. Instead, his reproduction of the opening period followed unchanged (mm. 29-38 = 3-12). He then added a codetta using similar material (Example 13) to finish off the principal theme. The subordinate (second) theme will be in the dominant, F#, and he wrote a very simple transition to it (Example 14) with material similar to that of the codetta which it follows.

EXAMPLE 13 – Schubert D.575 IV mm. 39-46.

Source: EPSTEIN (1888, p. 14 (56)).

EXAMPLE 14 – Schubert D575 IV mm. 47-50.

Source: EPSTEIN (1888, p. 14 (56)).
3. Schubert’s subordinate theme

Schubert’s subordinate theme, which is here the second theme (Examples 15, 16), is tuneful, contrasting with the more assertive music in the first theme (apart from the middle section of the first theme, in D major, which was already unassertive but in a different way). The dolce marking is what he very often used for a subordinate theme (as in the first movement of this Sonata mm. 30 and 117). In choosing his material he followed the notion that the movement as a whole should have thematic unity. The melody therefore again begins with the rising three-note figure that began the principal theme (and that also constituted its two preparatory measures); this time, though, he applied augmentation to that figure, by the very large factor of 24 (sixteenth-notes will become four-measure units). He spread out those melody notes by starting with another figure, taken from the turning-around figure in Beethoven’s mm.3-4, which is similar to Schubert’s mm. 5-6. Thus Schubert’s two main themes are not entirely contrasting, but are instead to some extent unified. The accompaniment consists simply of repeated chords but in mm. 54-55 he introduced small changes to those repetitions, echoing the lilting figure and providing a little more activity, which is needed because the right-hand material is quite simple despite the non-trivial way it was composed. To make sure the melody was clearly in evidence he placed an accent mark on its first note F# in m. 53, then on G# and the other notes as it concludes more freely; the broader melody outlined is thus F#, G#, A#, F#, D#, C#, A#. That ends the first part of his subordinate theme (Example 15), which is a regular period of eight hypermeasures of essentially 6/8. A second part to that theme follows, with a few more harmonies (Example 16); the broad melody in this part is F#, B, G#, A#, F#. The first part had 8 hypermeasures but this second part has only 7 hypermeasures because the last hypermeasure (mm. 79-80) is abbreviated from the two hypermeasures that it could have spanned (Beethoven often preferred four-square writing and might well have favoured a regular 8-hypermeasure second part, but such strongly convincing or square phrasing is not something Schubert felt a special need for, aside from dance music to some extent).
Schubert’s two themes are now in place, and codettas (essentially full closes) follow. The first codetta begins by moving to the dominant with the same three-note figure as in mm. 1-2, this time moving up from one measure to the next, instead of down. Then the dominant note C# is dwelled upon with another figure derived from the themes of this movement. Accents are placed on the main notes: A, B, C#, C#, C#. Then comes a full close with a three-chord pattern, having one chord per measure – this new pattern could perhaps be regarded as a modified 16-fold augmentation of the three-note figure at the beginning of the movement. Example 17 is now in place. This codetta is then repeated from the dominant note, now with an added brief harmonic departure in mm. 96-99 towards, though not quite reaching, the key of the minor mediant, A major, as it is deflected by a deceptive cadence (Example 18). That colourful departure keeps interesting events happening. It is true that m. 100 could have a high A-natural rather than A# in each hand, but the A#s are quite acceptable too. The second codetta (Example 19) is, as expected, a shorter one, and reaches a lower register to confirm the end of the exposition; the dotted-quarter three-note figure is now inverted.
The retransition to the repeat of the exposition is simply a dominant-seventh elaboration, again with thematic figures, regaining the higher register after the exposition had ended in a lower register (Example 20 up to the repeat measure-line). For the transition to the beginning of the development section proper (Example 20 after the repeat measure-line) the last cadence of the retransition is reused to step down from B: V through A: V to G: V and thus to G: I. The move down a major third from the tonic (G from B) is one of Schubert’s favourites; he had already used it many times and in fact in this Sonata the Scherzo is in that key (G from B) and the Andante has its middle theme there too (C from E). He probably already foresaw moving back up from G: I, in a longer series of steps, to C# = F# : V for the start of the recapitulation in B major, a typical scheme of his.
EXAMPLE 20 – Schubert D.575 IV mm. 112-132.

Source: EPSTEIN (1888, p. 15 (57)).

4. Schubert’s development section

Schubert wrote his development proper in two sections: one based on the retransition/transition material (three stepping eighth-notes), and then one based on Beethoven’s mm. 3-4 subordinate theme, thus closely related to Schubert’s mm. 5-6. Because the subordinate theme is closely related to part of the principal theme, the demarcation between the two themes as they appear in the development is not always entirely clear (possibly reflecting a slight weakness of construction).

For the first section, the right hand is based on the three stepping eighth-notes motif just used in the retransition and in the following transition, while the left hand may be considered a reversal of the lilting figure that first appeared in m. 5 and then in m. 7 – in fact a double-reversal, both in direction (upward becoming downward) and in metrical orientation (beats 1 to 2 becoming beats 3 to 1). That satisfies Schubert’s understanding of development as manipulation of material from the exposition (apart from the possibility of occasionally introducing new material) – but manipulation just for its own sake rather than for any convincing overall purpose (see later Example 28). Example 21 begins with a phrase of four hypermeasures or eight written measures. Mm. 133-136 is a simple presentation of this developmental material; mm.137-140 is an answering portion with the right hand now having a rhythmically augmented thematic presentation of the first four notes of the subordinate theme (mm. 51-52), C#, D#, B#, C# now becoming D, E, C#, D, which Schubert made clear by adding accent marks on those notes. Next he reproduced the previous eight measures,
just using a higher note in m. 146 compared with m. 138. He continued with simple counterpoint between treble and bass while starting the harmonic ascent (Example 22) with four-measure units in keys G, A minor, B minor, C#V7.

EXAMPLE 21 – Schubert D.575 IV mm. 133-148.

Source: EPSTEIN (1888, p. 15 (57)).

EXAMPLE 22 – Schubert D.575 IV mm. 149-160.

Source: EPSTEIN (1888, p. 15 (57)).

EXAMPLE 23 – Schubert D.575 IV mm. 161-172.

Source: EPSTEIN (1888, pp. 15-16 (57-58)).
For the second section of the development, from m. 161 with subito pp, he took his material directly from the second theme, C#, D#, B#, C# in mm. 51-52 becoming C#, D, C#, D in mm. 161-162. He also increased the developmental activity there by involving other voices: alto in slow motion, tenor delayed by one measure, bass also in slower motion (the bass in approximately contrary motion to the alto). That treatment is quite elaborate (Example 23). After 12 measures he moved that material up a step from C# to D# (Example 24), and increased the rate of the ascent by moving up a semitone at m. 178 to E (mm. 178-185). The grouping here is in four-measure units throughout: mm. 161-164, ..., 185-188, 189-192, the last two units being indicated by four-measure slurs. The last eight measures, from the pp marking, proceed from E (= B:IV) to recover the tonic key of B major where the recapitulation will start, after a two-measure pause with a fermata.

5. Schubert’s recapitulation

The recapitulation of the first theme starts in the tonic B; the recapitulation of the second theme also starts in the tonic B – Schubert had seen that generally happen in Beethoven’s and others’ sonata-allegro movements, and he did that too, even though he was probably not really convinced of the need for it, for he was naturally attracted to a variety of tonal areas (NEWBOULD, 1997, p.78) as was certainly appropriate in his early large-scale vocal works reflecting sung text.
Schubert started by copying the exposition exactly, thus starting in B major (Example 25). In the exposition, he had moved down a third from the temporary key of D major to B minor; now, in the recapitulation, he continued down a further third to G (it is true that he had used that key already, in the development, but that duplication probably does not spoil the effect very much) (Example 26). This leads to the following downward-third movement as before, now therefore arriving at E minor and then E major, which is the subdominant of the home key, from where his earlier simple move up a fifth (mm. 47-50) for the second theme in the exposition this time (mm. 251-254) leads to the tonic B major for the second theme (Example 27). (Sometimes he simply started a recapitulation in the subdominant, as in the first movement of the present Sonata m. 93 and in D.279 I m. 118, but here he reached the subdominant only later in the recapitulation of the principal theme. So there would be no justification for saying that his approach via the subdominant (IV-I) is a lazy one in this case – rather, he seems to have been attracted to the reproduction of the motion running parallel to the I-V of the exposition.) Meanwhile, his new portion in G, mm. 219-225, is slightly modified from mm. 209-215 because it now starts on a different melodic degree (Example 26). The E-major section (third part of the principal theme) is higher than when it was in B-major, and he modified it very slightly in m. 249 (Example 27) from m. 45 (Example 13) because the sound would have become thinner at its new height.


Source: EPSTEIN (1888, p. 16 (58)).

EXAMPLE 26 – Schubert D.575 IV mm. 217-232.

Source: EPSTEIN (1888, p. 16 (58)).
The recapitulation of the subordinate theme runs as in the exposition but now transposed to the tonic key. The codettas follow unchanged, again of course in B major. For the second codetta (mm. 308-315) he changed to a lower register, and towards the end he added a diminuendo marking, so the movement finishes with a fading-out effect, as he very often favoured. He just added a final measure with a $ff$ chord, which hardly belongs to this movement but rather marks the end of the sonata-opus as a whole (he had ended his recent piano Sonata D.537 somewhat similarly).

6. Discussion and further work

That completes my attempt to trace Schubert’s compositional thoughts, and I will add a few thoughts of my own.

The correct determination of any model or models can be important in the analysis of what the composer intended and how he thought about his music. For instance, Schubert’s measures 5-6 (Example 1) could be understood differently in the absence of their model (Beethoven’s mm. 3-4, Example 4) and thus their function of maintaining the previously reached scale degree could be missed. The presence of models means that two or more movements are to be analysed in tandem; AI analytical methods currently being explored (see footnote 2) may face challenging problems in such cases.

Schubert’s present subordinate theme (Examples 15, 16) might not be considered particularly effective – the texture might seem too thin and the melody and rhythm too simple (perhaps depending a little on the tempo chosen). Thus SCHAUFFLER (1949, p.267) commented that “The finale, full of terribly banal tunes, makes the Schubert lover hang his head”. Recognising the
widely-spread melody indicated by the arrows in Examples 15 and 16 and its thematic significance might to some extent forestall such evaluations. Nevertheless, it may be admitted that Schauffler’s comment has some validity.

It is noted that Schubert did not need to make use of the Trio of Beethoven’s movement, satisfying though that Trio certainly is.

Schubert tried to learn from Beethoven’s example, but little success was possible for him, mainly because Beethoven’s manipulation of material was of a logical kind, whereas Schubert’s produced uniformity throughout a movement without the extra ingredient of logical force. The comparison of those approaches was aptly illustrated by KÖLTZSCH (1927, p. 78) (Example 28), who also examined Schubert’s life-long derivations from Beethoven and other composers (KÖLTZSCH, 1927, passim). It was not in Schubert’s nature to handle composition in the Beethovenian way, nor of Beethoven’s to handle it in the Schubertian way.

EXAMPLE 28 – Diagrams representing Schubert’s approach to the progression of musical ideas (top) compared with Beethoven’s approach (bottom).

Source: KÖLTZSCH, 1927, p. 78.

Schubert’s Sonata for violin and piano D.574, written just before the present D.575 and in the same month, was very successful by anyone’s judgment, from which one might be tempted to conclude that he had no particular problem so long as he had a separate instrument or voice for the melody while the piano’s main task was accompaniment. However, he could already write well even when both melody and accompaniment were to be played by the same instrument, the piano, as is seen for instance in the slow movements of his solo piano sonatas. The minuet or scherzo movements, focussing on rhythm, also presented little problem for him. What he could never write well was abstract music. Beethoven wrote abstract music better than anyone else, but was not quite so suited to lyrical music or to purely rhythmical (dance) music. Schubert, on the other hand, wrote
lyrical music marvellously and also purely rhythmical music as in the small dances, but was not so suited to abstract music. Those differences between the two composers arose ultimately from their natural inclinations. More extensive comments on Schubert as a composer would require consideration of far more music than the present single movement, and would therefore require a much more extensive article.

In view of the present derivation, one may well wonder whether Schubert worked in a similar way in some of his other early compositions, especially piano sonatas, in which case more could be discovered about his learning process. In fact, the present instance is not the only one of its kind, for the four-hand piano Fantasie D.48 of 1813 also reveals clear derivations from Beethoven, in that case Op. 13 I, Op. 57 III and Op. 3/2 I (NETTHEIM, 1991). The research thus opened up to seek more such derivations would be quite extensive; I hope to undertake further work of that kind and hope that others will do so too.

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