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Some Planets in Narnia: A Quantitative Investigation of the *Planet Narnia* Thesis

In his stimulating book *Planet Narnia: The Seven Heavens in the Imagination of C.S. Lewis*, Michael Ward presents his case that in writing the Chronicles of Narnia, Lewis selectively infused each book with different Medieval astrological imagery, each appealing to a different “planet”. Jupiter, Mars, Sol (the sun), Luna (the moon), Mercury, Venus, and Saturn each take centre thematic-stage lending imagery, mood, and associations to the books. The seven books of the Narniad each correspond to a different planet. This correspondence, argues Ward, accounts for both the length of the Narniad (there are seven planets, hence seven books), and the seemingly peculiar decisions Lewis made in selecting narrative details. For instance, why does Father Christmas appear in *The Lion, the Witch, and the Wardrobe* (LWW)? Ward answers that Father Christmas embodies Joviality, and Jupiter is the guiding thematic reference of this book. “Father Christmas is, in modern culture, the Jovial character *par excellence*, loud-voiced, red-faced, and jolly” (66). “Father Christmas standing against the snow represents just that splash of vivid red-on-white that a tale of Joviality requires. He is the eye to the face of this story, the eye of Jupiter” (67).

Ward builds his case convincingly. He observes that as a Medievalist, Lewis’s scholarship, poetry, and fiction were steeped in Medieval imagery, and his fascination with the seven planets personified and deified was evident in works outside the Narniad, particularly his poem “The Planets”, his discussion of Medieval poetry in *The Discarded Image*, and the three books of the Space Trilogy, *Out of the Silent Planet*, *Perelandra*, and *That Hideous Strength*. In *That Hideous Strength* several of the planets even visit earth in anthropomorphic forms.

Identifying these extra-Narniad sources of blatantly planetary imagery, Ward then draws our attention to the words, phrases, passages, and events in each of the seven Chronicles of Narnia that correspond to the concepts, moods, images, and themes that Lewis himself associated with each of the planets in his other work. To illustrate, having established that silver was associated with the moon or Luna in Lewis’s other work, Ward then highlights the frequency with which silver and silvery images appear in *The Silver Chair*. The result is a persuasive and enriching re-examination of the Narniad through the lenses of Medieval astrology—lenses Lewis wore enduringly himself.

Ward’s analysis is so sensible, so rewarding, so satisfying, but is he right? Did Lewis, consciously or unconsciously clothe each of the Narniad in a different astrological costume? Ward’s evidence, as impressive as it is, omits a critical type of data that is essential for drawing confident conclusions of this sort, namely, baseline frequencies. In his discussion of *The Lion, the Witch, and*

the Wardrobe he draws our attention, for example, to the large number of references to redness: the Witch's mouth, Maugrim the wolf's mouth, Tumnus's red muffler and reddish skin, the red lion on Peter's shield, and so on. Missing is evidence that the frequency of redness in *LWW* is any greater than it is in any of the other books in the Narniad. If *LWW* was consciously—or even unconsciously—written to represent Joviality and the other books were not, we would not only expect to see Jovial themes in it, but Jovial themes at a relatively higher rate than the other books. Only attending to those cases that fit with a theory and downplaying or ignoring those that might be problematic (such as instances of redness in *Prince Caspian*) may obscure the truth of the matter.

Psychological scientists have rigorously studied the natural human inclination to downplay or even ignore baseline frequencies and selectively attend to confirming pieces of evidence, a reasoning heuristic called “confirmation bias” (Gilovich). When considering hypotheses such as “more babies are born during the full moon”, it is more natural and easier for us to attend to cases that fit with the hypothesis (all of the babies born while the moon is full) than cases that might count against the hypothesis (all of the babies born at all other phases of the moon). Knowing about this human tendency to selectively attend to supportive evidence, experimental psychologists have devised techniques for protecting themselves from this and other biases. Among the techniques are statistical tests that give us greater confidence that the observed frequency of cases or events is greater than what might be expected by chance.

As Ward has offered a psychological hypothesis—that Lewis had different Medieval astrological themes in mind when writing each of the seven books in the Narniad—these scientific psychology techniques may be useful in evaluating this hypothesis. If Lewis did not consciously (or unconsciously) inject each book with a different imagistic mixture, we would expect a fairly uniform distribution of words, concepts, images, and themes across the books—at least with regard to those words, concepts, images, and themes that relate to the seven Medieval planets. We would expect the idea of redness, for instance, to appear with comparable frequency across the seven books. Alternatively, if Ward is correct, we would expect to find that the relative frequency of certain words varies across books. Jovial ideas would appear more frequently in *The Lion, the Witch, and the Wardrobe* than in the remaining books. Hence, redness, being associated with Joviality (according to Ward) would be more frequent in *LWW* than in the other books. More importantly, the entire collection of Jovial ideas would be more frequent in *LWW* than in the other books.

Method

To test Ward's *Planet Narnia* hypothesis, then, I used Ward's book to determine which concepts constitute each of the seven planets' profiles. I tabulated the frequency of each concept for each of the seven books in the Narniad and then

used statistical tests to determine (1) whether any book was greater in planet-concept frequency than might be expected by chance and (2) whether the book that was greatest in frequency was the book identified by Ward. To illustrate, concepts Ward argued were characteristic of Sol (the Sun) were identified. Then the frequency of each Sol concept in all seven books was determined. A statistical test (one-sample t-test) was used to determine whether this distribution of frequencies deviated from what might be expected by chance. If this distribution was different than what might be expected by chance, the book highest in frequency was tested against each of the others to determine whether its greater frequency was unlikely to come about by chance deviation. If so, was the book the one Ward argued corresponded with Sol—in this case, *The Voyage of the “Dawn Treader”* (VDT)?

This strategy required a number of logistical decisions to be made with which other scholars may reasonably disagree. The first decision was to use word frequency (including synonyms and derivatives) as a proxy for a concept or image. For instance, the moon would be captured by the word “moon”, “moons”, “moonlight”, or “moonlit”. The frequency with which any of these words occurred in each of the books was taken as frequency for the concept “moon”. Similarly, redness frequency was measured using the words “red”, “redness”, “redder”, “ruddy”, “scarlet”, “crimson”, “reddening”, etc. What this strategy misses is the possibility that a concept or image was included indirectly or metaphorically. For instance, the moon might be referred to as “that envious orb”, and not be counted because the word “moon” did not appear in that context. Using only word frequencies may also fail to count moods created through more complex linguistic arrangements. This decision was made for practical reasons—it is easier to count words than images—but it may have under-counted occurrences of concepts. Note, however, that if this under-counting (or even over-counting) was comparable across stories, it would not adversely impact the results of the analysis as it is relative frequencies and not absolute frequencies that are important. That is, although such a strategy may be blind to rhetorical subtleties, it is blind in a fair way; it does not favour one interpretation over another, and thus is not biased to find what we seek whether or not it is there.

A second logistical decision concerns how to pool the frequencies of the various concepts associated with a given planet. One strategy would be to simply total the number of Martial (or Jovial, Lunar, Solar, etc.) concept words, yielding a total frequency. Perhaps the most straight-forward measure of a planetary theme’s prominence, this strategy leaves itself open to a particular concept producing undue influence. For instance, Ward argues “wetness” is somewhat associated with Medieval Lunar imagery but the frequency of the word “water” and associates in *The Voyage of the “Dawn Treader”* may be unduly inflated because it is a book about a voyage on the sea where water surrounds the ship, perhaps for reasons entirely unrelated to Lunar themes.

(Indeed, Ward argues that *The Silver Chair* is the Lunar book of the series.) The enormous relative frequency of this one concept (wetness) in this book may overshadow the consistent use of diverse Lunar imagery in another book, or the frequent use of non-Lunar imagery in this book. To minimize this potential risk at missing a real pattern because of an outlier, another strategy would be to note the relative frequency of each concept across each story and average how often any given concept appears greater than might be expected given the total occurrence in the series. Such a calculation is less influenced by outliers and preserves information about the relative distribution of concepts. For instance, of all the Martial concepts (48 were identified), if they are distributed evenly across the seven stories, we would not expect any one story to have a large number of concepts with greater than average frequency. If a given story has numerous concepts all appearing at greater frequency than what is average across the stories, then this pattern would count as evidence that this story was written with a particular planet in mind. Because these two ways of counting (absolute frequency versus by-concept frequency) both have merits, both were calculated, but the second, more stable method was used for drawing conclusions in this paper.

The books in the Narniad vary in page length. Hence, a third logistical decision pertained to counting absolute frequency. One could simply count number of occurrences in each book or could adjust for the page-length of each book. Given the sizable differences in page length (79 for *The Lion, the Witch, and the Wardrobe*, 106 for *The Voyage of the "Dawn Treader"*), absolute frequency was adjusted for page length. Likewise, by-concept frequency was calculated using the expected occurrence of a concept per page. Specifically: total concept count across the Narniad multiplied by the number of pages in a given book, divided by the total page number of all books. This formula yielded an expected total number of concepts per page that could then be compared to the actual observed frequency. The proportional deviation from the expected count could likewise be calculated (observed count minus expected count, all divided by expected count), and then the proportional deviation for all the concepts for any given planet could be averaged. An average of zero, indicating no deviation between stories, would represent what we would expect by chance. A positive score would represent greater than expected imagery related to the given planet.

A list of concepts identified by Ward as related to a given planet was compiled and then word frequency counts for each concept by book were completed. Searches were conducted using a word-search engine on a digital version of *The Chronicles of Narnia*. Words were examined in their original context to determine whether they represented the concept at stake instead of an alternative meaning (including metaphorical meanings, negations, or homonyms). Given that Lewis had an audience of children in mind, in most cases his meaning was relatively straightforward.

In a small number of cases similar concepts were associated with more than one planet. Ward's framework allows for this as certain planets (including the gods associated with them) bore some relationship to each other in Medieval astrology and Classical mythology. This overlap creates the possibility that a given book may evince the presence of more than one planet influencing it, but one planet should appear dominant.¹

Results

Quantitative analyses presented here suggest that four of the seven books have greater amounts of planetary imagery than might be expected by chance, and those four correspond to Ward's analysis. For one book, *Prince Caspian*, the evidence is suggestive without being conclusive. For two books, however, the evidence is not supportive of Ward's thesis. Results are summarized in Table 1 (page 6).

Jupiter and The Lion, the Witch, and The Wardrobe

For planetary imagery I gave Ward the benefit of the doubt and relied on his identification of concepts and themes identified as corresponding to a particular planet. A concept was dropped if it did not appear in the Narniad. For instance, Ward identified "magnanimity" as a Jovial idea but no derivative or synonyms were found in any of the books in the Narniad. Close synonyms were collapsed into a single concept when frequency across books was less than one per book. Using these criteria, 28 Jovial concepts (including derivatives) appeared at least once in the Narniad: king, peace, throne, leisure, cheer, wisdom, justice, shining, joy, May, Spring, Summer, gay, calm, merry, pomp, prosperity, Jove, emperor, feast, lion, oak, minotaur. A complete listing of the concepts used for each planet appears in the Appendix of this article, page 14.

Ward argued for a LWW-Jupiter relationship. Absolute frequency was not supportive. With 2.49 Jovial concepts per page, *The Lion, the Witch, and the Wardrobe* ranked behind four other books in the series with *The Horse and His Boy* having the highest frequency of Jovial concepts at 3.61 per page. By-concept frequency likewise was not supportive. By examining average proportional deviation from expected frequency for each concept, *The Silver Chair* was the most Jovial with Jovial concepts averaging 50% more frequent than expected, whereas LWW was second at 35.6%. Using a one-sample t-test to determine whether any book significantly deviated from expected frequencies (summing across concepts), only *The Magician's Nephew* reached the standard level of statistical significance (a result likely to come about less than 5% of the time). *The Magician's Nephew* had fewer Jovial images than might be expected by chance with 35.7% fewer than would be expected.² It appears, then, that we have no evidence that any of the books show a decidedly Jovial influence on their writing.

Table 1.

| | Jupiter | Mars | Sol | Luna | Mercury | Venus | Saturn |
|--|-----------------|-----------------|------------------------|-----------------------|-----------------------|-----------------------|-----------------|
| <i>The Lion, the Witch, & the Wardrobe</i> | 35.6 (2.49) | 1.0 (3.95) | -35.7 (1.78) | -20.1 (1.37) | -47.8 (3.04) | 32.4 (2.57) | 24.6 (3.29) |
| <i>Prince Caspian</i> | 5.5 (3.30) | 42.3 (4.98) | -18.3 (1.94) | 4.3 (1.58) | 2.2 (2.78) | -4.3 (3.38) | -2.3 (2.62) |
| <i>The Voyage of the "Dawn Treader"</i> | -13.1 (1.87) | -13.9 (2.86) | 123.6 (4.41) | 4.2 (2.53) | -3.5 (2.83) | -32.8 (1.69) | -2.6 (2.86) |
| <i>The Silver Chair</i> | 50.0 (2.71) | -7.4 (3.47) | -24.5 (2.54) | 70.2 (1.98) | -10.2 (3.53) | 5.5 (2.86) | 51.5 (3.08) |
| <i>The Horse and His Boy</i> | 12.5 (3.61) | 17.6 (4.18) | -21.8 (2.19) | -12.4 (1.88) | 83.1 (6.40) | 6.8 (2.32) | -13.9 (2.48) |
| <i>The Magician's Nephew</i> | -35.7 (2.08) | -32.2 (2.76) | -17.0 (2.22) | -9.3 (2.02) | 3.5 (3.38) | 52.9 (4.06) | -32.9 (2.59) |
| <i>The Last Battle</i> | -12.1 (3.45) | 0.1 (4.09) | -24.2 (2.34) | -32.8 (1.48) | -19.8 (3.82) | -33.7 (3.01) | 9.9 (2.91) |

Each cell presents two scores for how much a book reflects the influence of a given planet. The first score indicates the average degree (in percentage) to which planetary concepts deviate from expected frequencies. A negative score suggests concepts appearing less frequently than might be expected and a positive score means that concepts appear more frequently than might be expected. The score in parentheses is the average number of times any planetary concepts appears per page in a given book. Scores in bold indicate significantly positive frequency. Highlighting indicates cells predicted to be significantly positive. Heavy-framed cells indicate correspondence with Ward's predictions. Prince Caspian does not reach the typical standards of statistical significance but is most Martial on both measures.

Mars and Prince Caspian

Ward argued for a *Prince Caspian*-Mars association. Absolute frequency was modestly supportive. *Prince Caspian* had 4.98 Martial concepts per page compared with 4.18 for *The Horse and His Boy* and 4.09 for *The Last Battle*.³ The by-concept frequency modestly favoured *Prince Caspian*. *Prince Caspian* had 42.3% more Martial concepts on average than we might expect by chance with *The Horse and His Boy* second at 17.6%. No book, however, differed significantly from chance (0% deviation) according to one-tailed t-tests, a finding that casts some doubt over whether any one book was intended to be distinctively Martial. Nevertheless, the probability of *Prince Caspian* evincing such Martial character only by chance deviation (and not by either conscious or unconscious design by Lewis) was only approximately 6%.⁴

If any book was written with conscious or unconscious use of Martial imagery, it was *Prince Caspian*, consistent with Ward's argument, but evidence from these analyses is only modestly supportive.

Sol and The Voyage of the "Dawn Treader"

Sol is allegedly the guiding-light of *The Voyage of the "Dawn Treader"* and data suggest Ward could be right. *VDT* had 4.41 Solar concepts per page, whereas the next closest book, *The Silver Chair*, only had 2.54 Solar concepts per page. Similarly, *VDT* had 123.6% more Solar concepts on average than would be expected by chance, a statistically significant difference.⁵ All other books had fewer Solar concepts than would be expected. Results suggest *The Voyage of the "Dawn Treader"* certainly was infused with Solar imagery.

Luna and The Silver Chair

Results suggest that, as Ward argued, *The Silver Chair* is decidedly Lunar in spirit. Though in absolute frequency *The Silver Chair* ranks third at 1.98 concepts per page, behind *VDT* (2.53 per page) and *The Magician's Nephew* (2.02 per page), its by-concept score is more encouraging. At 70.2% more Lunar concepts on average than expected it is the only book that has significantly more Lunar concepts than would be expected, the only other significant deviation from 0% being *The Last Battle* with 32.8% fewer Lunar concepts than might be expected.

Even considering just the absolute frequency scores, *The Silver Chair* performs poorly against *The Voyage of the "Dawn Treader"* and *The Magician's Nephew* on the basis of only one class of items—those associated with water. Dropping the concept "water" reduces *The Silver Chair's* absolute frequency to 1.54 concepts per page from 1.98, but drops *The Voyage of the "Dawn Treader's"* frequency from 2.53 down to 1.52 per page.

Using the more stable measure of by-concept proportional deviation *The Silver Chair* is far-and-away the most Lunar of the books and significantly more so than we might expect from chance deviations. We have evidence, then, that *The Silver Chair* in particular was written with Lunacy in mind.

Mercury and The Horse and His Boy

Examination of Ward's treatment of Mercury in relation to *The Horse and His Boy* yielded 42 concepts that appeared at least once in the Narniad. *The Horse and His Boy* was clearly the most Mercurial of the books. Using absolute frequency as an index, Mercurial images appeared 6.4 times per page in *The Horse and His Boy* with the next closest book (*The Last Battle*) only having 3.82 concepts per page. Likewise, the by-concept proportional deviation from expected revealed that *The Horse and His Boy* had 83.1% more Mercurial concepts than might be expected, a statistically significant difference from 0%. The only other book that significantly deviated from expected was *LWW*. It had 47.8% fewer Mercurial concepts than might be expected.⁶ The evidence is strong that Lewis used Mercurial concepts and imagery in the writing of *The Horse and His Boy*.

Venus and The Magician's Nephew

Twenty-three Venerian concepts were gleaned from Ward for these analyses. In absolute terms, 4.06 Venerian concepts appeared per page in *The Magician's Nephew*, more than any other book. *Prince Caspian* was next with 3.38 per page. Considering by-concept proportions, *The Magician's Nephew* was likewise most Venerian with 52.9% more Venerian concepts on average than might be expected by chance, a statistically significant deviation from chance. Two other books significantly deviated from chance, *The Voyage of the "Dawn Treader"* and *The Last Battle*, but in the negative direction. That is, they were anti-Venerian in character with a decided absence of such features.⁷ As Ward argues, *The Magician's Nephew* appears to be under the influence of Venus.

Saturn and The Last Battle

Ward provides 29 Saturnine concepts that are readily detectable in the Narniad. Unfortunately for Ward's thesis, *The Last Battle*, which he argues is Saturnine in character, ranks fourth in terms of absolute concepts with 2.91 per page. *LWW* is most Saturnine by this measure with 3.29 concepts per page. Considering by-concept proportional deviation from chance, *The Last Battle* fares no better. It only has 9.9% more Saturnine concepts on average than would be expected, far less than *LWW* (24.1%) and *The Silver Chair* (51.5%). No book had significantly more Saturnine images than would be expected by chance, but *The Magician's Nephew* had significantly fewer (32.9%).⁸ None of the books in the Narniad appears particularly Saturnine.

Alternative Possibilities

Ward does discuss the possibility that Jovial imagery—allegedly in *LWW*—is most evident in contrast to Saturnine imagery, as Jupiter is the new king supplanting the rule of Saturn. Ward writes: "In *The Lion* the aestival influence of the Jovial Christ accounts for this key architectonic feature of the story: the overthrow of the White Witch's reign....But this Saturnocentric

world is about to be brought to its end" (58). It may be then, that while Lewis had planetary imagery in mind for *LWW*, it was a Saturn-Jupiter shift that he attempted to depict. Hence the inconclusive evidence for either Saturnine or Jovial imagery in the book.

To test this more subtle hypothesis, I conducted separate analyses on the first part of *LWW* and on the second part, using a transition point offered by Ward. "The great transition away from winter and toward summer starts in chapter 10 ("The Spell Begins to Break") and continues gradually throughout the book, culminating in the arrival at the sea in the final chapter" (58). Using the same sorts of analyses as presented above, the first nine chapters of *LWW* still failed to show greater than average Saturnine imagery and the remaining chapters did not appear more Jovial than average either.

Another possibility is that Lewis wrote the first book, *The Lion, the Witch, and the Wardrobe*, as a gospel allegory but then shifted to the planetary framework that Ward has advanced thereafter. In this case, *LWW* may be an outlier and should not be used in the frequency calculations. Perhaps, dropping *LWW*, *Prince Caspian* is more Martial than would be expected based on the concept use characteristic of the other books. To address this possibility, I conducted the same analyses omitting *LWW*. The results do not change markedly. *Prince Caspian* is slightly more Martial but still falls short of statistical significance in deviation from average Martial imagery in the series. *The Last Battle* still fails to map on to any planet in distinctive ways, and the remaining four books still fall clearly under the shadows of their respective planets.

Discussion and Conclusion

The results of these analyses provide mixed support for Ward's thesis. Evidence suggests that if any of The Chronicles of Narnia were written with Saturn in mind, it was *The Silver Chair* and not *The Last Battle*. Likewise, *The Lion, the Witch, and the Wardrobe* bears no persuasive evidence of Jovial influence greater than the other books and certainly not greater than *The Silver Chair*. *Prince Caspian* appears more Martial than the other books, but the evidence is not conclusive. On the other hand, the third through sixth books in the series all fit Ward's thesis well. *The Voyage of the "Dawn Treader"* has more Solar imagery than any other book and more than might be expected by chance. A similar strong relationship is evident between *The Silver Chair* and Luna, *The Horse and His Boy* and Mercury, and *The Magician's Nephew* and Venus. How might this imperfect fit be explained?

Poor Operationalization

One distinct possibility is that while Lewis did, deliberately or unconsciously, infuse each book with a different planetary theme, the methods used here simply failed to detect these themes accurately. Such measurement error could have arisen in at least three ways. Firstly, it may be that Ward failed to identify

all of the images, concepts, themes, and moods that Lewis associated with each planet in such a way that rendered unrepresentative the sampling used for the present analyses. A second possibility is that I have failed to successfully operationalize Ward's concepts into a representative group of words for which to search the texts. Thirdly, counting errors may have been committed. Note, however, that all of these sources of measurement error would likely have been distributed fairly randomly across the planets, books, and concepts. The effect would be a clouding of results rather than making one book appear more Jovial or Saturnine than it would have been otherwise. For instance, it is unlikely that Ward's selection of concepts to represent Saturnine imagery would have differentially favoured *The Silver Chair* looking particularly Saturnine at the expense of *The Last Battle*—particularly unlikely since Ward attempted to select those concepts that would build the strongest case for *The Last Battle* as Saturnine in contrast to the other books. Similarly, my operationalization of Saturnine concepts may have introduced error missing some and over-counting others, but this error would be roughly the same for counting of terms in each book and for each planetary set of concepts. It does not appear that the two books that missed the mark are likely to be accounted for by these sorts of error. This sort of error leading to more statistical "noise" could account for why *Prince Caspian* failed to reach standard levels of statistical significance in deviation from the Narniad average for Martial imagery.

Related to errors in operationalization, it could be argued that treating each concept as equally relevant to a given planetary image is a mistake. After all, surely themes of fertility, for instance, are more central Venerian associations than the presence of dwarfs (which Ward identifies as Venerian on pages 172-173). Weighing concepts such as "growth" and "mother" the same as "dwarf" could obscure patterns that really occur. Such an argument has merit but presents the difficult task of differentially weighing concepts: is a single instance of growth worth twice that of a dwarf? Three times? The argument also cuts both ways. Perhaps the detected relationship between book and planet for four of the books only arises because Ward has already unfairly emphasized some distant concepts at the expense of more central ones. The current analysis treats "rain" as comparably Lunar as "moon" (including moonlit, moonlight, and moonshine). If "moon" were given more weight than "rain" in indicating Lunar imagery, it would weaken the Lunar connection with *The Silver Chair*. Without a principled way of assigning weights, picking which concepts to favour over others creates a temptation to massage the data to fit preconceptions or desired outcomes.

Incidentally, it is not even clear that paying particular attention to only the "central" images would save Ward's case for *LWW* and *The Last Battle*. Ward writes that "the second major Jovial theme which we find constituting *The Lion, the Witch and the Wardrobe* [is] kingliness" (60). The word king and its variants such as kingly, kingliness, and kingdom actually appear much more frequently in *Prince Caspian* (162 times), *The Horse and His Boy* (138 times), and

the *Silver Chair* (80 times), than in *LWW* (39 times). Similarly, Ward identifies two central Martial themes influencing *Prince Caspian*, militarism and silvanism (87) but then asserts, "The military theme is the stronger, for Lewis is chiefly motivated to make his readers "look along the beam" of medieval chivalry" (88). Particularly emphasized by Ward in this regard is the image of a knight, but the concept "knight" (including derivatives) only appears 10 times in *Prince Caspian* versus 11 in *The Voyage of the "Dawn Treader"* and 29 times in *The Silver Chair*. Broadening to include war, battle, warrior, and knight in the list of key Martial concepts, we find that *Prince Caspian* underwhelms with 35 occurrences compared with *The Horse and His Boy's* 36 and *The Silver Chair's* 32. Selectively weighing militarism over silvanism would actually weaken *Prince Caspian's* Martial distinctiveness. Regarding *The Last Battle*, it is not clear what the most central Saturnine images might be, but strong candidates such as old and elderly, cold, and grim are all more common in books other than *The Last Battle*. Only death and dying are candidates for central images that are more common in *The Last Battle* than the other books, but even here the differences are slight. Death and dying appear 31 times in both *The Last Battle* and *The Silver Chair*, but as *The Last Battle* is a shorter book, its per-page-count is higher. Nevertheless, it would take some creative cherry-picking of images to allow *The Last Battle* to emerge triumphant in the war to be most Saturnine.

Lewis Could Have Tried and Failed

Perhaps *LWW*, *Prince Caspian*, and *The Last Battle* failed to provide convincing evidence of a distinctive planetary influence because of failure on the part of the author. That is, perhaps, as Ward has argued, Lewis did attempt to systematically but subtly dress each book in the clothes of a particular Medieval planet, but he simply missed the mark. In an effort to be clandestine in the attempt, he failed to make the imagery prominent enough to be convincingly detected. Given Lewis's own Mercurial gifts with language, such an explanation seems implausible, but it is possible nonetheless.

Lewis May Have Unconsciously Used Planetary Imagery

Perhaps, rather, Lewis did not *intentionally or deliberately* use planetary imagery, but it just spilled out of him unconsciously for five of the seven books. Passionate as he was about Medieval astrology, and so drunk on its notions, five of the books may have happened to have touched upon themes close enough to five planetary themes as to unconsciously activate these concepts in Lewis while he wrote. Perhaps. For *The Chronicles of Narnia* to not bear any of the Medieval imagery that Lewis loved would be surprising, but for four (or five) books to very cleanly map onto four (or five) of the planets unconsciously would be surprising as well. Book three, *The Voyage of the "Dawn Treader"*, contains vastly more Solar imagery than any other book. All six of the other books had less Solar imagery than might be expected by chance due

to the heavy disproportion of Solar ideas in *The Voyage of the "Dawn Treader"*. It could be that the story Lewis wanted to tell in this book unconsciously triggered decidedly Solar imagery in Lewis, but for decidedly Lunar imagery to characterize the fourth book (and no other), and Mercurial imagery the fifth book (and no other), and Venerian imagery the sixth book (with only one other moving in that direction), seems unlikely. It would suggest that the otherwise thoughtful and introspective Lewis was strikingly unaware of the planetary themes that trickled into his writing, one book after the other.

The First and Last Books as Hybrids

Another possibility is that the first and last books of the series both represented shifts from Saturnine to Jovial themes, but these themes blended in such a way that simply analyzing the first and second parts to the books fails to detect the prominence of these planetary motifs. Ward provides for this possibility in his own analysis. Perhaps Lewis recognized that *The Lion, the Witch, and the Wardrobe* was a transition from one planet to another, wrote the next five books with a single planet in mind, and then used the double-planet scheme as the other bookend for the series. Such an explanation, however, does not account for *The Silver Chair* being more Saturnine than both *The Last Battle* and *LWW*, and *The Silver Chair* as more Jovial than *The Last Battle*. In fact, if one combines Saturnine and Jovial concepts into a single category, *The Silver Chair* is clearly most Jovial-plus-Saturnine.

Lewis Did Not Follow a Formula

Given the evidence available, it does not appear that Ward's strong thesis withstands scrutiny. That Lewis deliberately wrote the seven books of the Narniad each with a different Medieval planet as the source for moods, themes, images, and concepts is not supported. We do not have enough evidence to say that Ward has fully cracked Lewis's code for all seven books. A weaker version of Ward's thesis—that Lewis used Medieval astrological ideas as inspiration for most of the books—is supported by the data. The irregular pattern of results suggests Lewis did not systematically follow a formula.

Such a conclusion lacks elegance, but may fit better with Lewis's writing practices. In his most obviously planetary fiction, the Space Trilogy, we see the first book, *Out of the Silent Planet*, depicting a journey to Mars and the second, *Perelandra*, telling of a journey to Venus. If Lewis were inclined toward formulae and strict pattern adherence we might expect in the third book a journey to Mercury. Instead we have a story set in an English university town that dramatizes the arguments Lewis raises in *The Abolition of Man*. Personified planets do make an appearance, but not all of them. Lewis did not appear concerned with formulaic plot devices in writing the Space Trilogy; perhaps we should not be surprised if he only deliberately worked in planetary imagery in four or five of the seven Chronicles of Narnia.

It may be that additional analyses or evidence could be marshalled in support of Ward's general thesis, but even if it does ultimately fail, this failure would not undercut his sizable intellectual contribution in identifying the affinities between The Chronicles of Narnia and Medieval astrological imagery. Even for the books in which such a connection may not have been Lewis's intention, Ward demonstrates how wearing these astrological glasses may enrich and enliven our reading of the books. Further, it seems likely that for at least four of the books, *The Voyage of the "Dawn Treader"*, *The Silver Chair*, *The Horse and His Boy*, and *The Magician's Nephew*, Ward has provided a genuine insight about Lewis's sources of inspiration.

JUSTIN L. BARRETT

Notes

¹ Analyses were conducted again after removing these concepts that fit more than one planet and the results did not change meaningfully from those reported below.

² Mean deviation from expected for *LWW* was 35.6% (SD = 143.2%), $t(27) = 1.315$, $p = .199$, against a test value of 0. Mean deviation from expected for *The Magician's Nephew* was -35.7% (SD = 66.1%), $t(27) = 2.859$, $p = .008$. Elsewhere I adopt the following conventions of abbreviation: "M" indicates mean, "SD" is standard deviation, "t" followed by a number in parentheses indicates a t-test statistic with a specified degrees of freedom, and "p" indicates the probability of such a t-statistic arising by chance. Values less than .05 are regarded as improbable enough to be dubbed "statistically significant." All reported t-tests are one-sample t-tests against the null hypothesis that the true mean of concepts' proportional concept deviations is 0.

³ Note, however, that Ward identified "horse" as having Martial associations indirectly through the tight association between knights and horses (83). For this analysis, "horse" was not included because of this indirect instead of direct association and because one book in the Narniad, *The Horse and His Boy*, features two horses as primary protagonists, and hence would skew analyses.

⁴ *Prince Caspian* was nearest to reaching significance: M = 42.3%, SD = 151.0%, $t(47) = 1.813$, $p = .061$. One Martial concept identified by Ward, "hard", was not included because of its varied use and the ambiguity with which it might map onto the Martial sense of "hard". It wasn't clear whether or not to include such uses as "hard going", "looking hard at...", "hardly." To avoid error, the concept was not counted.

⁵ *The Voyage of the "Dawn Treader"*: M = 123.6%, SD = 178.0%, $t(17) = 2.946$, $p = .009$.

⁶ *The Lion, the Witch and the Wardrobe*: M = -47.8%, SD = 55.2%, $t(41) = 5.611$, $p < .001$. *The Horse and His Boy*: M = 83.1%, SD = 182.1%, $t(41) = 2.957$, $p = .005$.

⁷ *The Magician's Nephew*: M = 52.9%, SD = 121.4%, $t(22) = 2.088$, $p = .049$. *The Voyage of the "Dawn Treader"*: M = -32.8%, SD = 52.3%, $t(22) = 3.005$, $p = .007$. *The Last Battle*: M = -33.7%, SD = 62.3%, $t(22) = 2.597$, $p = .016$.

⁸ *The Last Battle*: M = 9.9%, SD = 90.9%, $t(28) = .585$, $p = .563$. *The Magician's Nephew*: M = -32.9%, SD = 79.1%, $t(28) = 2.241$, $p = .033$.

Appendix

The following table presents each of the concepts used for each planet along with a representative page number from Ward's *Planet Narnia* where he suggests the concept as related to a particular planet. If no page number is listed the concept is a synonym of another in the list.

| Jupiter | Mars | Sol | Luna | Mercury | Venus | Saturn |
|--------------------------------------|----------------------------|-------------------------------------|--|-----------------------------|-------------------------|-----------------------------|
| king, 43 | haughty/ proud, 78 | gold, 100 | divide, 122 | language, 140 | foam, 164 | old, 19, 43 |
| peace (-ful/-able/- maker), 43 | cruel (-ly/ -ty), 78 | light (not weight), 101, 112 | moon (-shine/-lit/ etc.), 122, 126 | speech, 140 | mother, 165 | elderly |
| throne, 49 | trouble, 78 | wise/ wisdom, 101 | beauty, 122 | writing, 140 | copper, 166 | ugly (-iness), 19, 43 |
| leisure, 43 | cold (-ness), 78 | dawn, 108 | wander (-ing), 122 | eager (-ness), 140 | beauty, 166 | hideous |
| cheer (-ful), 43 | laugh (-ter/ -ing), 78 | east, 108 | lunatic/ raving, 122 | clerk, 140 | fortune, 166 | death, 43 |
| wise/ wisdom, 43 | rescue, 79 | sun (-rise/ -set/-shine), 108 | mad (-ness), 123 | intelligence, 140 | love, 166 | winter (-y), 45 |
| justice, 43 | save (as in rescue), 79 | mouse/ mice, 108 | change (-ing), 122 | quicksilver, 141 | apple, 167 | freeze (-ing), 57 |
| shining, 44 | courage, 79 | eye, 108, 109 | silver, 123 | profit, 141 | garden, 167 | cold (-ness), 57 |
| joy (-ful), 44 | strength, 79 | bright, 109 | boundary/ barrier, 123 | join/rejoin (-ing), 142 | gum, 167 | frost (-ed), 57 |
| May (the month), 45 | violent, 79 | fortune (-ate), 108, 109 | frontier, 124 | part (-ing/ -ed), 142 | sweet (-ness), 168 | stone, 57 |
| Spring, 45 | happy (-iness), 79 | love, 106 | danger, 122, 124 | active (-ity), 142 | grow (-th/ ing), 168 | steel, 57 |
| Summer, 45 | achieve (-ment), 79 | gilded, 111 | jealousy, envy, 131, 132 | divide (-d/-ing), 142 | flower(s), 168, 175 | sick (-ly), ill, 193 |

Appendix, continued:

| Jupiter | Mars | Sol | Luna | Mercury | Venus | Saturn |
|--------------------------|-----------------------------|-----------------------------|---|----------------------------|--------------------------------|---|
| gay, 45 | knight, 79 | philosophy (ize/er), 112 | water, 121 | together, 142 | Morning Star, 169 | pestilence, plague, 193 |
| calm, 55 | steep, 80 | clips- (eclipse), 112 | moisture, damp, 127 | unite (-ity), 143 | warm, 170 | lead (the metal), 193 |
| gentle, 55 | point (-ed), 80 | clear (water, air), 112 | soak, drench, 127 | witty, clever, 146 | wet (-ness), 170 | sad (-ness), melancholy, grave, 193 |
| merry (-iment), 54 | narrow, 80 | dragon, 113 | dew, 127 | excite (-ed), 146 | marriage, wedding, 171 | gloom (-y) |
| pomp, 54 | high, 80 | truth, 107 | wet, 127 | poet (-ry), 146 | female, woman, lady, 171 | pain, 193 |
| prosper (-ity), 43 | weapon, 81 | dew (-drop), 106 | rain, 127 | herald, 147 | fragrant, 173 | grim, 192 |
| Jove, 48 | spear, 81 | | brain, wits (clearing/ out of), 128 | messenger, 147 | ripe, 173 | sour, 192 |
| emperor, 60 | war, 82 | | confuse, 129 | quick, 147 | dwarf, 172, 173 | numbing, 192 |
| feast (-ing/ -ed), 62 | (to) march, 83 | | green, 131 | haste, 147 | children, 174 | mountain, 196 |
| lion, 63 | Spring/ March, 83 | | | playful, 148 | laughter, 174 | sorrow, 196 |
| oak, 65 | warrior, 83, 88 | | | amuse (-ing), 148 | heal (-th/ -ing), 182 | Father Time, 195, 197 |
| Minotaur, 65 | fight, 83 | | | wings, 149 | | grey, ash- coloured, 198 |
| red (-den/ -dish), 66 | wolf, 83 | | | flight, fly (-ing), 149 | | die, dying, 198 |
| crimson | tree(s), 82 | | | fancies, 151 | | wither, 194 |
| scarlet | branch(es)/ twigs, 82-83 | | | steal, raid, 152 | | weak, 196 |

Appendix, continued:

| Jupiter | Mars | Sol | Luna | Mercury | Venus | Saturn |
|-----------|------------------------|-----|------|--|-------|----------------------|
| royal, 67 | Martial | | | words, 151 | | last, final, 193 |
| | laurel, 83 | | | meet (-ing), 151 | | dark (-ness), 195 |
| | fig, 83 | | | gathering (e.g. of people or things), 151 | | |
| | woodpecker, 83 | | | flock (-ing), 151 | | |
| | battle, 83 | | | wedding, 151 | | |
| | wood(s), 83 | | | thoughts, 152 | | |
| | forest, 83 | | | twin(s), 153 | | |
| | army (-ies), 84 | | | horse (-man), 153 | | |
| | bow(s), 85 | | | box (-er), punch, 153 | | |
| | shield(s), 85 | | | pair(s), 154 | | |
| | (chain)mail, 85 | | | two, 154 | | |
| | armour, 85 | | | crossroad, a crossing, 154 | | |
| | obey, obedience, 99 | | | speed, 155 | | |
| | sword, 88 | | | swift, 155 | | |
| | hero(es), 85, 86 | | | run, chase, 155 | | |
| | chivalry, 88 | | | | | |
| | combat (-ants), 88 | | | | | |
| | castle, 88 | | | | | |
| | growth, 99 | | | | | |
| | iron, 78 | | | | | |

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