

# Correlation between Dwarf-Planet Astrometry and Mood: Preliminary Null Results

## Mini Review Article

### Abstract

We report on an extensive, ten-year monitoring campaign of the less-famous dwarf planets Haumea and Makemake. We find no correlation between their (currently similar) positions in the sky and the mood of a test subject. However, we acknowledge that this might be because we have sampled only 3% of these objects' full cycle around the sun, and only 0.3% of these objects' cycle with respect to each other. Observations will continue to see if the test subject's mood improves, or worsens, over these two periods. Preliminary results are presented now; final results will again be presented in this journal at the termination of these cycles.

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### Introduction

Prior to Herschel's discovery of Uranus in 1781, the field of astrology had grown stagnant, with the motions of the five naked-eye planets having been fully exploited. However, with the discovery of new planets, new possibilities for exploitation arose. In combination with the discoveries of Neptune in 1846 and Pluto in 1930, serious astrological research began anew, literally for the first time in recorded history (D. R. S'Dog, private communication).

Given this, many viewed Pluto's 2006 reclassification from "planet" to "dwarf planet" (IAU Resolution B5) as a major setback for the field of astrology. However, we instead argue that this represents a golden opportunity. Clearly, Pluto has lost none of its predictive powers over the past 11 years. ***It then stands to reason that other worlds that the IAU classifies as dwarf planets are no less astrologically useful. This increases the number of astrologically useful worlds by 50%!***

Given the recent spacecraft exploration of Pluto and Ceres, clearly astrological research is well underway for these worlds [1, 2]. Of the remaining dwarf planets, Eris is the most massive, but also the farthest away and consequently the least likely to impact our day-to-day lives (given the inverse-square law).

Consequently, we have decided to instead focus our attention on the remaining two, and least famous, dwarf planets, Haumea and Makemake. Both are currently located in Virgo.

We present the data that we have collected in §2, our analysis of these data in §3, and our conclusions and future plans in §4.

### Data

#### Dwarf-Planet Astrometry

For the past ten years, thousands of students at the University of North Carolina at Chapel Hill (UNC-CH), as well as students at other institutions using our curriculum, have imaged a variety of solar-system and popular deep-sky objects as part of our "Astronomy with Skynet: Our Place In Space!" laboratory course. In this course, students gain access to our 16- and 24-inch diameter PROMPT telescopes at Cerro Tololo Inter-American

Observatory in the Chilean Andes. They learn how to queue observations remotely using UNC-CH's Skynet interface,<sup>1</sup> and how to retrieve and analyze their observations once Skynet has completed them. Development of the curriculum was funded by the National Science Foundation, and so far the curriculum is used by students at approximately a dozen institutions, as well as by private citizens online.<sup>2</sup>

Before observing a moving object, Skynet updates its coordinates, using the best ephemeris currently available on SIMBAD. In this particular exercise, students identify dwarf planets by comparing their images to archival images from the Digitized Sky Survey.

As such, we have accumulated 5,462 images of Haumea and 5,702 images of Makemake, and for each a student has visually confirmed that the dwarf planet was exactly where its ephemeris predicted it to be.

It is almost as if this could be completely explained by Newtonian mechanics.

### Mood

To explore the possibility of a correlation between dwarf-planet astrometry and these worlds' psychological impact on human beings, we recruited a test subject, who we will refer to by his initials, DR, to protect his identity. DR is a Capricorn.

For this experiment, DR recorded his daily mood on a binary scale. Clearly, some days were better than others.

For greater resolution, we averaged these data over 1-month intervals. Currently, DR appears to be feeling "fine".

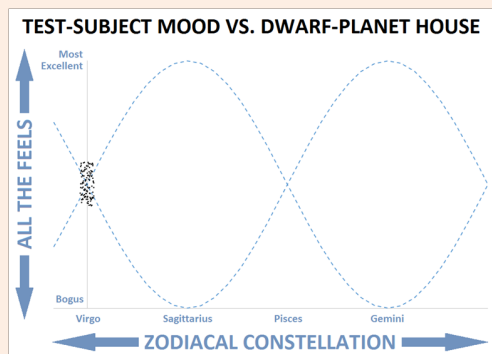
### Results

Although we have not yet collected enough data to determine if DR's mood is improving or degrading (see Figure 1), if the

<sup>1</sup><https://skynet.unc.edu>

<sup>2</sup>For more information, email [introastro@unc.edu](mailto:introastro@unc.edu)

anticipated correlation holds true, DR can look forward to – or should beware of – Haumea and Makemake’s motion into Sagittarius, with the opposite effect anticipated by the time they reach Gemini.



**Figure 1:** The monthly averaged mood of test-subject DR vs. the zodiacal constellation that houses Haumea and Makemake, and potential extrapolations (credit: Microsoft Paint).

Furthermore, given Haumea and Makemake’s slightly different astral speeds, over the next five cycles they will separate from one another, adopting opposing positions in the sky. Then over the next five cycles, they will come back into alignment. It is not clear if they are currently reinforcing each other, or perhaps counteracting each other.

As such, DR will continue to provide us with mood data for the duration of these cycles. As a Capricorn, he is determined.

That said, it is not clear if these patterns are unique to

Capricorns, or if people of different signage are also affected, and perhaps differently.

We are currently seeking volunteers.<sup>3</sup>

## Conclusions

Although we have not yet collected sufficient information to measure exactly how these distant worlds are affecting our collective psychology,<sup>4</sup> this need not get in our way of blindly accepting the hypothesis’s validity, and of moving on to the cost-recovery phase of this research. Plans are already underway for the production of trans-Neptunian dwarf-planet horoscopes, to better pin down life’s longer-term mood cycles. In particular, early drafts extol the importance of integrity for the maintenance of one’s long-term professional reputation.

## Acknowledgements

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## References

1. Stern SA, Bagenal F, Ennico K, Gladstone GR, Grundy WM et al. (2015) The Pluto system: Initial results from its exploration by New Horizons. *Science* 350(6258).
2. Russell CT, Raymond CA, Ammannito E, Buczkowski DL, De Sanctis et al. (2016) Dawn arrives at Ceres: Exploration of a small, volatile-rich world. *Science* 353(6303): 1008-1010.

<sup>3</sup><https://users.physics.unc.edu/~reichart/questionnaire.pdf>

<sup>4</sup>Other than the repeated verbalization of “Makemake” appears to lighten everyone’s mood. Haumea does not have the same effect.