

# Be careful



Pat Harris explains  
the hazards of  
astrological research

**T**he debate on whether or not astrology can actually be researched has been a very hot one for a very long time with debaters on each side of the divide in agreement that it cannot be researched but in total disagreement about why. I believe that it can be researched and, in some instances, very effectively.

In my experience, it is possible to use statistical analysis to research astrology but the appropriateness of applying the statistical research approach to this discipline depends upon what you are looking for – what you want to find out about and what you are seeking demonstrate. Individuality and astrology is a minefield for researchers (Eysenck and Nias 1982), whereas it is possible to use statistical analysis to research outcomes, as in forecasting astrology.

One of the major challenges, if not the major challenge, for researchers in and into astrology is finding the right hypothesis or research question. This sounds very straightforward but there are many pitfalls and many have fallen into them. If you ask the ‘wrong’ question you won’t get a ‘right’ answer and this is what has been called the ‘rubbish in, rubbish out’ effect in statistical research, in general.

### **Rubbish in, rubbish out (or, as they say in the USA, garbage in, garbage out)**

This refers to the input of information into computers and *also refers to poor data in general, whether or not a computer is used for analysis*. Whatever you put in will determine what you get out, so making sure you are putting in relevant and intelligible information in

the form of good data when you are carrying out analysis in any research project is essential to ensuring that the results are worth something. Ensuring that the data you are collecting is of good quality is essential to the value of the results. This may mean that you have to construct a specially-designed questionnaire for your study that your participants are requested to complete. Including questions that are clear and unambiguous under different section headings is one way of ensuring you get enough details around the data to enable you to test it according to your research question. So, identifying the information you need in order to examine your particular astrological research question is vital and researching existing material in your specialist line of enquiry will help you to do this thoroughly and well.

# what you ask for!

For astrology, this has been a mighty problem. This is because scientists and academics have tended, in the past, to focus upon an observation of astrology and, without properly researching the literature to find evidence or support for such an observation, set about testing it. The example I most often cite is the study that was designed to test the association of people with the Sun in Libra and incidence of kidney disease. In a study which looked at 200 outpatients in a renal unit, grouping patients by Sun sign, Hughes (1990) found no correspondence between the Sun in the sign of Libra and susceptibility to renal disease. The abstract for this study states:

“Astrologers presume a link between the susceptibility of particular organs to disease and signs of the Zodiac. A simple test of the positive connection between

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renal disease and the sign of Libra was undertaken by studying the birth dates of consecutive nephrology in-patient admissions. No significant link was found on analysis, thus disproving the traditional astrologers' claims.”

William Davidson (1973), a medical

doctor with a strong interest in astrology who used it in diagnosing his patients' conditions, discussed in detail his empirical findings on correspondences between various diseases and planetary relationships in the astrological birth chart, and indicated that Saturn in Aries or Libra will signify poor function in the kidneys if this relationship is sufficiently supported by other planetary factors. A literature research would have shown this association, so why test for something for which there is no apparent evidence? The study's conclusion appeared to support the general scientific view that there was nothing in astrology but, what it actually demonstrated was the lack of rigour in some academic research projects. Rubbish in, rubbish out. The paper was published, nevertheless.

When I was planning my research

## FEATURE SECTION: Be careful what you ask for!

design for my doctorate it was impressed upon me:

- How important it is to be clear about what you are asking,
- To be able to ask it, and, therefore,
- To be able to answer it as far as is possible

### Point 1 - being clear about what you are asking

You need to be clear about what you are trying to find an answer for. So, doing research into your area of interest in order to help you find out what is already known and not known is essential to this process.

### Point 2 - asking it – is it a question that can be answered?

Once you know what you want to ask you have to work out *if the data needed to answer the question can be obtained. If the data are inadequate you get rubbish in/rubbish out.*

### Point 3 - how can it be answered?

This is where methodology comes in. You have to be able to design an approach that will enable you to test your data in terms of the question that you have asked.

All of these considerations should be carefully thought through before any research begins and, in this way, the results of your research will actually mean something in terms of what you were hoping to find.

In my research, my null hypothesis – my research question expressed as a statement – was that astrological factors would have no link to success or failure in treatment for infertility when controlling for levels of state and trait anxiety (Marteau and Bekker 1992) and perceived health competence (Smith, Wallston and Smith 1995).

After I had carried out my first (exploratory) study, my findings caused me to revise this for the second (replicate) study; the revised hypothesis is that astrological factors will have no link to success or failure in treatment for infertility, when controlling for levels of state and trait anxiety, subjective report of

experience of personal depression and women's history of fertility problems.

Although my initial research question was carefully and simply worded, the findings of my exploratory study had further clarified my research question so

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that I was more able to clearly test for an association of astrology with outcome, considering only the variables that had also shown as significant in the first (exploratory) study.

Two-phase research designs like these are extremely important in research into astrology as they can help shed light on whether or not there is some hidden significant association at work that would account for the 'astrological effect'. This, then, makes your research design and your subsequent findings robust and deals with much of the criticism that is levelled at astrology by academic and scientific researchers by preserving your research intellectual rigour. It is additionally important because this type of study design can also deal very effectively with the danger of making Type I and Type II errors (Robson 1993).

### Type I and Type II errors

Type I: falsely rejecting the null hypothesis – finding something present when it is not actually there.

Type II: failing to find something that is actually there so you accept the null hypothesis when, in fact, a relationship exists.

In 2008, *The Journal of Sexuality, Reproduction and Menopause* published a paper I had written summarising my research for my doctorate (Harris 2008). I carried out two studies: Study 1 was an exploratory study of 114 treatments, 16 of

which resulted in the birth of a live baby. In this exploratory study, I sought to identify astrological factors that were present at time of embryo transfer in the successful group of treatments and absent in the unsuccessful group. Once I had done this, I then used a complicated statistical test – logistic regression – to enable me to rule in or out any other variables that might account for the association of astrology with successful outcome. The sort of variables I looked at were age of woman at time of treatment, fertility history (health issues), location of clinic, etc. In all, there were over thirty variables – and at least one positive finding, purely by chance, is expected (statistically) when twenty or more variables are considered (Type I error). But this was an exploratory study so the model developed from it was tested on a new sample to avoid such an error (Boivin et al. 2009, Harris 2009).

Example of a Type II error: Belleville, et al (2012) carried out a Canadian-based study to assess the impact of seasonal and lunar cycles on psychological symptoms in the emergency departments (EDs) of two Canadian university hospitals. Consenting patients presenting with unexplained chest pain (UCP) (n = 771 female patients) underwent a clinical interview with questionnaires for self-completion to assess presence of panic. Seasons and lunar phases were determined by the date of each patient's visit to the emergency department (ED). Lunar phases were defined as seven-day periods, including the exact day of phase change (plus or minus 3 days). No seasonal effects were found on mood disorders and suicidal ideation, nor any significant impact of lunar cycles on any of the studied psychological symptoms; observation of seasonal patterns for panic and anxiety was consistent with previously-published findings. It was concluded that no significant effects of lunar cycles were observed. But there was one significant finding: anxiety disorders other than panic disorder were 32% less frequent during the last quarter (OR=0.684, 95% CI = 0.489-0.959).

So, in fact, a significant effect of lunar cycles was observed but it was rejected, constituting a Type II error. The main emphasis and message in the conclusion was that “findings encouraged ED professionals and physicians to abandon their beliefs about the influence of lunar cycles on the mental health of their patients”!

Finally, even if your study is carefully designed and you have taken on board good and reliable advice and carried out your preliminary research, you may still find yourself dismissing information that your research design may have revealed, even though not statistically significant, which may suggest further investigation in a future study with a more rigorous design, as in the case of the research into violence and lunar cycles (Smith 1999).

### Scientific research into astrology: scarily disconcerting or annoyingly exasperating?

When I first became a student of astrology in the late seventies and early eighties, I was fortunate to meet and become friends with that Renaissance man among astrologers, the late Charles Harvey. He was both intuitive and understanding, but also enquiring and critical. He encouraged me to subscribe to *Correlation*, at the time, a publication that Charles himself had a significant role in creating. As I had no academic background, I felt I would never be able to appreciate its content but I followed his advice. Thirty or so years on, I now appreciate what he actually meant, even though *Correlation* has changed quite a bit since then and is certainly more ‘user friendly’, promoting scientific enquiry into astrology from all sides. So, like Charles, I would strongly advise that if

you are at all interested in, or considering undertaking any, research in astrology, you should certainly read this publication. In my opinion, and as the editor of *Correlation*, it cannot help but make you a better explorer in the astrological research world.

### Getting advice and support for your future research plans

If you need any help with designing a study and/or researching astrological literature, Research Grants for the Critical Study of Astrology (RGCSA) is a good resource. We exist, primarily, to support postgraduate UK university-based astrological research, but we also provide advice and guidance to anyone enquiring about research in this discipline. We have an expanding database of abstracts of academic research papers in astrology which you can access free whether you are a postgraduate or independent researcher. Visit us at [www.astrology-research.net](http://www.astrology-research.net) to see how we can be of help to you in achieving good standards of research in, and into, astrology.

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