



Postgraduate/Distance Learning Assignment coversheet & feedback form

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For completion by the student:		
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Module code: HPCA7002 Module title: Foundations in Cultural Astronomy and Astrology	Student ID number: 1813501	Educational support needs: /No
Assignment title: 'Complete Bollocks' – How do people think astrology works and could the placebo effect be the reason why when it does?		
Assignment due date:		
This assignment is for the module of the degree 1 st ☐ 2 nd ☒ 3 rd ☐ 4 th ☐ 5 th ☐ 6 th ☐		
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‘Complete bollocks’ - How do people think astrology works and could the placebo effect be the reason when it does?

Introduction

This research paper explores how people experienced astrology before, during and after their consultation with a predictive medical astrologer, who advised them when to schedule in-vitro fertilisation (IVF) treatment in order to get pregnant. The purpose was to try to identify what contributed to the outcome of a successful pregnancy and healthy baby: was it the *belief* in astrology that worked or could the outcome be attributed to a placebo effect? This will be examined in light of people’s experiences of and beliefs about astrology and its predictive abilities – without attempting to validate any truth claims about astrology; their perceptions of what constitutes ‘science’; and recent research on the placebo effect. This inquiry is therefore as much about how astrology works as about how it doesn’t, as reported by participants. Does believing in astrology affect the accuracy of an astrological prediction? Does ‘fondness’ or positive feeling towards the subject contribute to a successful outcome? What is working when astrology ‘works’?

Literature Review

James Davidson suggests that people like astrology because it keeps them linked to the sky, and says: ‘I don’t believe in astrology but I am rather fond of it’.¹ Davidson does not have to believe in astrology in order to get some benefit from it, while his fondness for it seems to give him some meaningful connection to the cosmos. Astrological authors such as Garry Phillipson, James Brockbank, and Patrick Curry have articulated definitions of ‘astrology working’, but these are not particularly relevant here as this is not a paper about the truth claims of astrology.² Scientific researcher Arthur Mather writes that: ‘The experiences are real enough; what is in dispute is how they are best explained’.³ Here is the nub of the paradoxical nature of astrology: it might be ‘utter rubbish’, as IVF specialist and doctor Robert Winston maintains,⁴ but it still appears to have some benefit, indeed even work, in some instances even when patients are hostile to astrology.

¹ James Davidson, ‘I told you so!’, *London Review of Books*, 26(23) (2004), pp. 12–18 (p. 7).

² James Brockbank, ‘The Responsive Cosmos: An Enquiry into the Theoretical Foundation of Astrology’ (unpublished doctoral thesis, University of Kent, 2011), p. 6; Gary Phillipson, *Astrology in the Year Zero* (London: Flare, 2000), p. 132; James Brockbank, ‘The Responsive Cosmos’, p. 146, quoting Patrick Curry; and Roy Willis and Patrick Curry, *Astrology, Science and Culture – Pulling down the Moon*, (Oxford: Berg, 2004), p. 101.

³ Arthur Mather, ‘Modern Science, Epistemology and Astrology’, *Correlation*, 26(1) (2008).

⁴ Helen Carroll, ‘Could Astrology Boost Your Chance of a Baby?’, *Daily Mail*, 21 January 2011, available at <https://www.dailymail.co.uk/femail/article-1348783/Astro-fertility-helped-couple-conceive-baby-years-failed-IVF.html> [accessed 10 May 2019].

Geoffrey Dean (well-known sceptic and ex-astrologer) suggests that a ‘successful’ meeting with an astrologer (presumably one where the prediction proves to be accurate) consequently leads to ‘belief’ in astrology or confirms an existing trust in it.⁵ Nick Campion poses the chicken-or-egg question: ‘Is a visit to an astrologer a cause or consequence of belief?’⁶ Campion teases out the difference between *active curiosity* and *belief* (my words and emphasis) by citing studies by Geoffrey Dean and Arthur Mather which show that people who read their horoscopes do not necessarily declare a belief in astrology.

Dean and Mather, drawing primarily on opinion poll figures, commented that 70 per cent of the adult population read horoscopes while only 20 per cent ‘believe that there is something in it’. This raises the problem of why 50 per cent of the adult population does something it regards as meaningless. There is a clearly a ‘belief’ gap: half the adult population of the US and the UK perform an act which, most commentators insist, is concerned with ‘belief’, without ‘believing’ in it.⁷

This belief gap perhaps exists because respondents were not given the option of admitting to holding two seemingly contradictory beliefs systems at once. Campion points out that there may be a semantic solution to the problem of using the word belief – one could use the word *confidence* instead, as in, *I have confidence in astrology*.⁸ This begs another question: if the astrologer inspires confidence, will the astrology work?

One might ask what belief, especially belief in astrology, has to do with healing a medical condition like infertility. Arthur Kleinman, a medical doctor and anthropologist asserts: ‘Local cultural orientations... organize our conventional common sense about how to understand and treat illness; thus we can say of illness experience that it is always culturally shaped’.⁹ It could further be argued that ‘culturally shaped’ could be read as ‘cosmologically shaped’, according to the following definition of cosmology. Campion discusses cosmology in culture, here quoting Freya Mathews:

In the cultural sense, every group, every community and every individual, can have a cosmology: a view of the way the universe works and their place in it.¹⁰

⁵ Geoffrey Dean and Arthur Mather, ‘Key Topic 1: Is the Scientific Approach Relevant to Astrology?’, *Correlation*, 13(1) (1994).

⁶ Nicholas Campion, *Astrology and Popular Religion in the Modern West: Prophecy, Cosmology and the New Age Movement*, (Surrey: Ashgate Publishing Ltd, 2012), Kindle edition, p. 154.

⁷ Nicholas Campion, *Astrology and Popular Religion in the Modern West*, p. 160.

⁸ Nicholas Campion, *Astrology and Popular Religion in the Modern West*, p. 274.

⁹ Arthur Kleinman, *The Illness Narratives: Suffering, Healing, And The Human Condition* (USA: Basic Books, 1963), Kindle edition, p. 5.

¹⁰ Nicholas Campion, ‘Cosmology in Culture’, *Nicholas Campion’s Blog on Cosmology and Culture*, < https://nicholascampion.wordpress.com/cosmology-in-culture/#_ftn4 > [accessed 8 May 2019].

Alongside *belief* and *confidence*, *hope* could be considered as a powerful trigger for healing. Cheryl Mattingly, a medical author who writes about narrative healing, suggests that hope is a paradox and that hope, a verb, is a practice, which people act on.¹¹ Mattingly is seemingly well acquainted with the despair of the infertile woman when she articulates hope as:

Hope, that 'waking dream' as Aristotle called it, concerns imagined futures (Miyazaki 2004; Crapanzano 2004). Its direction is toward what may come to pass. It cannot be predicted—it is a future of 'what if'. Paradoxically, hope is on intimate terms with despair. It asks for more than life promises. It is poised for disappointment.

Methodology

This paper deals with the experience of astrology and uses a small sample group; therefore a qualitative, interpretative and phenomenological approach has been applied, which is well-suited to finding 'divergence and convergence' in narrative detail.¹² Judith Bell supports the use of in-depth interviews, as a means of 'portraying intensely personal accounts of human experience' (citing Janette Gray) although Bell warns that interviews can be time consuming.¹³ The very nature of the structure of story-telling (or narrative) is based on the tradition of 'once upon a time', a contextualization of when the story began, how it developed, and how it ended. As Gray says: 'Narrative inquiry can involve reflective autobiography, life story, or the inclusion of excerpts from participants' stories to illustrate a theme developed by the researcher'.¹⁴ The aim of this sampling was to ask the participants how their attitudes changed (if they did) before the consult, during the consult, and after they achieved success. At the time of the surveying, some of the participants' children were six years old and these participants had the benefit of self-reflexivity; one participant's baby was only two months old and her memories and recollections were consequently much more immediate, but potentially blurred in a haze of oxytocin.

I am a predictive medical astrologer and I approached twenty former patients who had used astrology in order to time their IVF treatments, and who were all successful. As the participants were all former patients of mine, this is a thoroughly emic take on the subject, with consequent pros and cons. There was only one astrologer (me), so the style and method of astrology was consistent. A further emic advantage was that I was able to refer to patient notes and verify facts

¹¹ Cheryl Mattingly, *The Paradox of Hope: Journeys through a Clinical Borderland*, (Berkeley, CA: University of California Press, 2010), p. 3.

¹² Jonathan A. Smith, Paul Flowers and Michael Larkin, *Interpretative Phenomenological Analysis: Theory, Method and Research*, (London: Sage, 2009), Kindle edition, p. 3.

¹³ Judith Bell, *Doing Your Research Project: A Guide For First-Time Researchers*, (Maidenhead: Open University Press, 2005), Kindle edition, loc 614, 644.

¹⁴ Janette Gray, 'Narrative inquiry'. (Unpublished paper, Edith Cowan University, 1998), p. 12.

to note any discrepancies in the reporting of their experience, which in itself is worthy of more study and research. Great trust and rapport between myself and my former patients/study participants enabled an easy flow during in-depth interviews and honesty.

An email was sent with a link to the questionnaire, asking them to fill it out online in the privacy of their own homes. Eleven responded; five participants subsequently agreed to be interviewed on Skype. The interview group included two couples, who filled out the questionnaire independently, but were interviewed together so that they were answering the same questions, in the same context. Every effort was made to ensure that both voices were heard equally.

In order to properly address the 'sense-making' of the participants' experience, a certain amount of 'bracketing' needed to happen in order to look at an attitude or comment in the responses as if it were entirely separate from the other comments, and yet also a part of the whole sum or total of the experience. This 'bracketing' or *Epoche*, the approach developed by Husserl, was employed to compare the participants' experiences to see if the findings contributed new ways of thinking about how astrology works. In 'turning back to the thing itself',¹⁵ I noted what the participants thought about astrology, their expectation of it as defined by 'intentionality'¹⁶ – ten out of eleven participants expected astrology to help predict *when* they could get pregnant. In figuring out what astrology is, in and of itself (from the perspective of the participant), I had to investigate what it is not (also from their perspective). This emphasis on their perspective conforms to the concept of 'verstehen';¹⁷ according to Hennik, Hutter and Bailey, 'It refers to understanding the life of the people whom you study from their own perspective, in their own context and describing this using their own words and concepts'.¹⁸

Comparing the therapeutic nature of the astrological consultation with the placebo effect, to see if astrology consultations actively, or inadvertently, employed aspects of those effects, and whether or not this contributed to the success of the treatments, seemed a way to eliminate ways in which astrology did or did not work.

¹⁵ Smith et al., *Interpretative Phenomenological Analysis*, p. 13, quoting Edmund Husserl, *Ideas: General introduction to pure phenomenology*, trans. W. Boyce Simpson (New York: Collier, 1962).

¹⁶ Smith et al., *Interpretative Phenomenological Analysis*, p. 13.

¹⁷ Monique Hennink, Inge Hutter and Ajay Bailey, *Qualitative Research Methods*, (London: Sage Publications, 2011), Kindle Edition, pp. 17–18, quoting D. Snape and L. Spencer, 'The Foundations of Qualitative Research', in *Qualitative Research Practice. A Guide for Social Science Students and Researchers*, ed. by J. Ritchie and J. Lewis (London: Sage, 2003), p. 7.

¹⁸ Hennink et al., *Qualitative Research Methods*, pp. 17–18.

The Placebo Effect and the Astrology Effect

The Program in Placebo Studies (PiPS) is an organisation that has done extensive research into the ethical and practical implementation of open label placebos (OLP) (where the patient understands that the pill or medicine has no physiological effect). Studies have suggested that the reason why it works as a stand-alone treatment is because it addressed the patient's need for 'hope' and their self-declared 'tragic optimism'.¹⁹

David Jopling, a researcher of the placebo effect, suggests the following as reasons why and how the placebo effect works:²⁰

- a) Some people are more responsive than others, and are described as being more '...weak in reality testing skills, hysterical, and submissive'.²¹
- b) Some patients distort their perception of their responses to please the doctor, reporting only positive changes and downplaying negative ones.²²
- c) Arthur Shapiro and Howard Brody argue that the doctor/practitioner themselves were the successful placebo effect, that bedside manner is a measurable contributor to a successful treatment.²³
- d) Studies by Levine and Tyrer et al. show that patients are able to trigger neurological responses with consequent changes in the brain, identical to pharmaceutical interventions.²⁴
- e) Researchers also believe that 'conditioning' or 'Pavlovian responses' activate the psychoneuroimmunological processes, which means one can train patients not to feel pain, or to respond to certain medication if it smells or even looks a certain way.²⁵
- f) Daniel Moerman, a medical anthropologist, argues that the placebo effect is a 'meaning response' inclusive of cultural (and even cosmological) triggers for healing.²⁶

¹⁹ Ted Kaptchuk and Franklin Miller, 'Open label placebo: can honestly prescribed placebos evoke meaningful therapeutic benefits?', *BMJ* (2018), available at <http://programinplacebostudies.org/wp-content/uploads/2018/10/Kaptchuk-Miller-BMJ-OLP-2018.pdf> [accessed 10 May 2019].

²⁰ David A. Jopling, *Talking Cures and Placebo Effects*, (New York: Oxford University Press, 2008), pp. 127–128.

²¹ Jopling, *Talking Cures*, p. 127; Anne Harrington, ed., *The Placebo Effect: And interdisciplinary exploration*, (Cambridge, MA: Harvard University Press, 1997).

²² Jopling, *Talking Cures*, p. 128.

²³ Jopling, *Talking Cures*, p. 128; Howard Brody, 'The Doctor as Therapeutic Agent', in Harrington, ed., *The Placebo Effect*, pp. 77–92.

²⁴ J.D. Levine, N.C. Gordon and H.L. Fields, 'The Mechanism of Placebo Analgesia', *Lancet* 312(8091) (1978), pp. 654–657.

²⁵ R. Ader, 'Processes Underlying Placebo Effects', *Pain Forum* 6(1) (1997), pp. 56–58.

²⁶ D. Moerman and W.B. Jonas, 'Deconstructing the Placebo Effect and Finding the Meaning Response', *Ann Intern Med.* 136 (2002), pp. 471–476.

g) The role of the imagination has been explored as a mechanism of the placebo effect and Jopling suggests that ‘...placebo effects... which cultural conception or imagined expectations, can override their pharmacological action’.²⁷ This is particularly true in studies that look at whether or not the patient is expecting (or hoping for) a positive outcome or avoiding a negative one.²⁸

Since the medical profession has been advocating using OLP as a stand-alone treatment in cases of pain relief and depression (though not in the case of chronic illness), it seemed a worthy pursuit to see if the astrological predictive consult shared common ground with the placebo effect, and if it did, whether astrology (used in this way) could be considered a stand-alone (albeit alternative) adjunct OLP treatment for infertility. It is also important to note that when comparing astrology as an alternative health care adjunct in the treatment of infertility, it could be classed as and is useful to consider as a ‘narrative healing construct’ or a talking psychodynamic therapy, as suggested by David Jopling.²⁹

Questions were asked deliberately to tease out the placebo definitions such as queries about the bedside manner of the astrologer, the age, emotional and educational maturity of respondents, their direct experience of the astrologer in terms of the placebo effect studies (eye-contact, perception of care, intentionality).

Findings

Of the eleven people who filled out the questionnaire, one was between twenty and thirty years old, four were between thirty and forty, and the rest of the respondents were older than forty. Eight people had a postgraduate or master’s degree, one person had a PhD, one had a school leaver’s certificate and the others had tertiary education from a polytechnic or similar institution.³⁰

With reference to the afore mentioned placebo definition of ‘weak in reality testing’, I concluded that this group were remarkably intelligent and highly functioning, although at least two of them indicated in further interviews that they had felt vulnerable and in a state of agitation during their consultations.³¹

²⁷ Jopling, *Talking Cures*, p. 128.

²⁸ Harrington, ed., *The Placebo Effect*, p. 117.

²⁹ Jopling, *Talking Cures*, p. 262.

³⁰ Please see Appendix for a selection of the findings of the questionnaire.

³¹ This and all other direct quotes that follow are from in-depth interviews conducted with five respondents, here called Michelle, Rachel, John, Dave and Louise (all names have been changed), 1–15 February 2019, all over Skype.

Six out of eleven respondents said that they definitely thought the moon had an effect on their menstrual cycle (or their partner's), three said 'maybe', and one said 'no.' This is worth noting as it points to the majority of respondents having some sort of individual cosmology.

I chose to interview those patients who had been successful, which I determined as having delivered healthy babies according to astrological predictions, because they were examples of astrology potentially working in and of itself and the births were concrete manifestations of a prediction, not a subjective assessment of a psychological state. I approached twenty respondents and eleven replied, all eleven conceived using IVF in an astrologically predicted time frame.

When asked whether or not the astrologer's time frame was unambiguous and clear (removing the potential for a Barnum effect),³² all eleven respondents said 'yes'. Whether or not they reported to have 'believed in' astrology before the consultation, they all experienced astrology as 'working', as they conceived within the time period predicted. The level of factual detail given by the astrologer during the consultation (when experienced as particularly detailed), combined with the perceived bedside manner of the astrologer, and the astrologer's tone (not always warm), solicited three comments that astrology was evidence based and scientific. It was interesting to note that of those who thought that astrology was scientific, two were (male) engineers and the third was a female architect.

When asked 'Did you find the consultation to be a safe space?', ten people said 'yes' and one said 'no', but added: 'I was extremely hostile and negative so no, but probably due to me, not the astrologer'. This respondent appears to be trying to placate the astrologer. The remainder might have answered 'yes' because all of them achieved a live birth and their overwhelming experience was positive, or the safe space might have contributed to them feeling positive or hopeful, or inspired confidence.

Participants were asked to comment in their own words on the bedside manner of the astrologer. Nine people responded, seven of whom made very positive comments, one was neutral and one was negative. The comments included:

- Professional but fun
- Straightforward, sincere and genuine

³² J. Tobacyk and G. Milford, 'Paranormal Beliefs and the Barnum Effect', *Journal of Personality Assessment*, 52(4) (1988), p. 737.

- Very calming, supportive and actually interested in us and our case - so many [doctors] treated us like patients with files - but I really felt like I was being heard
- Sometime abrupt, but factual, practical and not airy fairy, she [was] not overly warm or like a counselling therapist, but she was not disrespectful... I had such low expectations I didn't really care really
- Calming, professional and very factual and to the point

In regard to the participants' perceptions of the bedside manner of the astrologer, it must be noted that their comments express their particular personal needs for feeling valued, heard and comforted in a safe space. For example, one participant, Dave, mentioned later that although he felt heard and understood: 'I was almost disappointed that... there wasn't more voodoo, you know? I'd had enough of doctors, you know?... ironically it was the opposite of the expectations that I think you're thinking of.' Dave seemingly expected the consultation to be less structured and more orientated towards magic or the occult even, anticipating a more overtly psychic or intuitive contribution, in contrast to the medical and scientific processes he had already experienced through conventional medicine, but instead found it more similar than expected to the latter.

Michelle, who was hostile to the consultation, said that the astrologer was inaccurate once or twice (in general comments made during the initial consultation), but that when the IVF cycle looked as though it was going to fail, she had a second consultation, wherein the astrologer convinced her to stay the course. The second cycle succeeded – the astrology worked in spite of the respondent's absolute certainty that it wouldn't. Seemingly, belief, confidence and hope had little to do with astrology working in her case. Michelle, the patient, had this to say about her belief/hope in astrology in a further interview:

I don't think [my thoughts] could have been more negative. I didn't think [the process] would... give me any value at all... I had spoken to a number of different people that I would now say were complete idiots, charlatans, not everyone, but you know... one is enough... And yeah, I was in a really, really, really bad way so I knew that everything you told me would be pointless, possibly, probably damaging...

In terms of a 'good' bedside manner having a positive impact on patients according to the placebo studies' findings, it would appear that the respondents had contradictory experiences of the astrologer: part genuine and sincere, professional but fun, sometimes abrupt but able to make patients feel calm. The comments were divergent, indicating that there was no consistent experience of a homogenous bedside manner, in spite of the fact that the astrologer was 'the control' or the consistent element.

With regards to the 'Pavlovian' response considered above as one reason for the placebo effect, four out of five of the interviewed participants reported that they gained confidence in the accuracy of the potentially fertile time advised by the astrologer *after* hearing other accurate information regarding personal information during the consultation about themselves or their partners. This seems to support the Dean and Mather theory regarding a successful prediction (or 'astrology working') leading to belief in astrology, and is supported by placebo study findings that people are conditioned by their experience.

Louise had this to say:

... you said something about Dave or something about his mannerisms and it... rung so true that it was like, 'oh, okay, like, you must know what you're talking about'... you started talking about our characters and who we are as people before you spoke about anything to do with fertility. And so by doing that there's already a sense of, like, comfort. Like, you are talking about us, you're not just talking about us [as] this random Taurus or whatever, you know?

Another theme that emerged was that the consultation gave them a plan to act on. Several respondents commented that they felt compelled to action after the consultation, that it gave them a plan, a road map, a strategy, something to work towards. This move from curiosity to action is what inspired me to consider Campion more carefully, and to conclude that there is indeed a difference between active curiosity and belief but that they could be confused. Placebo studies talk about a 'trigger' for self-repair and that this minor shift from a neutral or hostile position in a consultation to curiosity or action could contribute in some way to how we experience belief.³³ We could assume that if Michelle invested £8,000 in a treatment based on astrology, she must have believed in it (as the Dean and Mather study suggests), but in her words she categorically did not. But she was compelled to action, as were Dave, Louise and Rachel, in their own words:

Dave:

You know, like, it [astrology] has, you gave us, like, a map. You said don't veer and we veered. And when we aligned it to what you were telling us it worked. So yeah, I don't believe in chance, I wouldn't say I believe in faith necessarily but there's definitely something there that worked.

Louise:

Yes, I actually remember Dave saying to me, like, but now you have a strategy. Like, I almost think that was a relief for you [turning to Dave... A road map that's the word you used. You were like, no, now there's a road map and now we just follow this road map.

Rachel:

³³Jopling, *Talking Cures*, p. 19.

The consult that we had you mentioned a lot of things that nobody else would know... like personality stuff, things that had happened as well. Like I can't remember the exact conversation but I do remember like Jacques and I going, like, well, how did she know this stuff? And that's what made us think that maybe this would work.

Interviewees were asked about what they thought of Robert Winston's inference that astrology is potentially harmful because it is not scientifically proven³⁴

Louise, (voice rising):

Well, clearly this fancy professor has never...he's never been through it. Like, that's all you have to say. It's just offensive...

Michelle's response:

Yes. Yes. Yes. I had some dreadful experiences of people who were promising me success and who I believed... You know I was doing everything a rational person could do to increase my chances of conceiving... the move to embrace IVF... swiftly moving onto donor egg... I was doing everything I possibly could but nothing was working. So yeah, I was terribly, terribly vulnerable.

When asked specifically whether or not she ever believed in the astrology, Michelle had this to say: 'I thought every word you were saying was complete bollocks. I just thought she's another charlatan completely, she is just doing this to amuse herself and all the rest of it.'

These comments referred to the first consultation, where Michelle was given time frames in order for her to schedule (costly) IVF medical treatment in order to get pregnant. A single round of IVF with a donor egg would be approximately £8,000 in 2019. Michelle went ahead and scheduled her IVF according to astrology, which she believed was 'bollocks'. She invested not only her emotions but also a vast sum of money, and travelled to a foreign country for IVF treatment. When the planned cycle was threatening to fail (the donor had not produced a viable egg), Michelle assumed all was lost. I met with her at this critical time and convinced her that the cycle would still result in a live birth, according to the astrology. Michelle's pessimism was not misplaced: this was her ninth attempt at IVF. This is how she described the process of committing to the astrological advice:

... you did say 'you have a once in a lifetime chance of conceiving in six weeks'. There was something about that... maybe the practicality, the detail, the time base, it wasn't vague, it was focused. I think it did not give me hope... hope was a, you know, a foreign land to me at that point and a dangerous place for me to go as well. I didn't want to hope ever, because hope is, is the devil... so never, ever did you give me any hope but you gave me, an interesting project. ...It was like a challenge.

³⁴ Quoted in Carroll, 'Could Astrology Boost Your Chance of a Baby?'

It must be stated upfront that a potential weakness in my methodology could be that the participants should have been given the option of being interviewed by someone other than me, in order to give them the space to be (more) critical, although it would seem that my group were uninhibited, as demonstrated in their comments.

Michelle maintains that she was absolutely certain the astrology would not work and she strongly denies her experience could compare with any of the placebo definitions – she reported a negative bedside manner, a hostile consultation, no expectations, no hope, no confidence and no belief. She said astrology was ‘absolute rubbish’, but that it had nonetheless worked, and she is quoted as saying ‘all of my scepticism has melted away.’

Rachel and John conceived triplets using astrology to determine when to have IVF treatment, but not before trying every other alternative method available, alongside conventional medical treatment. They later consulted the astrologer for career advice (which gives further support for Dean and Mather’s findings that astrology ‘working’ sustains faith in it). During that consultation the astrologer successfully predicted a second natural pregnancy and birth for the couple. Rachel said the second pregnancy was not something they had even considered, especially since they had needed seven IVFs for the first pregnancy and they thought it would not be medically possible to conceive naturally. They therefore attributed their second pregnancy entirely to astrology. They both thought astrology was scientific, and they thought it worked both times, saying that the first time the astrologer had created an environment that led to them being inspired to take action.

Louise (Rachel’s sister) and Dave had first encountered astrology through the experience of Rachel and John, whose success inspired confidence in them to use astrology. They tried one attempt at IVF at a sub-optimal astrological time and failed, only to schedule the next treatment in the optimum time given, and succeeded in delivering healthy triplets. Their first experience of astrology was failure to fall pregnant, but since the astrologer had identified the time of that treatment as sub-optimal, it was an accurate/successful astrological prediction nonetheless. A placebo effect could not possibly be at work in this instance as it is inconceivable that someone who declared a belief in astrology would spend £8,000 without expecting a positive result.

Concluding Thoughts

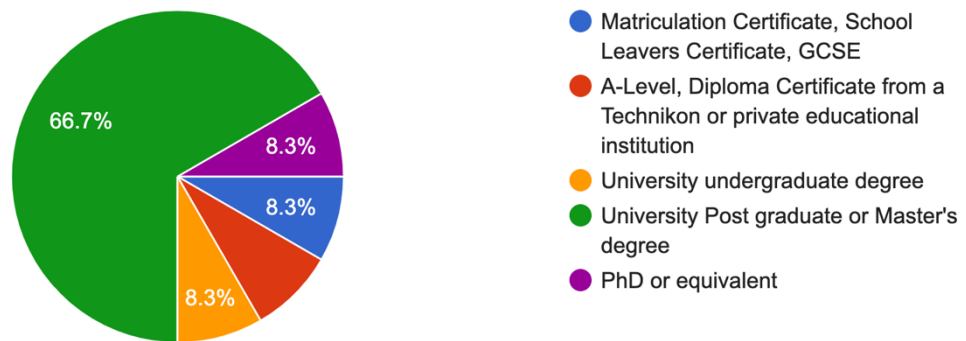
All interviewees were adamant that it was the astrology that worked, not any placebo effect. All report that they are now quite fond of astrology, even Michelle, and John has started formal

studies in the subject. The remainder of the questionnaire respondents reported that it was probably the astrology that worked, they just did not know how it worked. Astrology, it seems, also 'worked' without belief, hope or confidence, and therefore did not always comply with leading conditions or definitions of placebo effect studies. Further research in a larger group is needed in order to prove this more conclusively. One interpretation of this contradictory phenomena could be that the participants were unaware of recent placebo studies and had their own negative bias, and simultaneously were not knowledgeable about astrology either. Another is that astrology really does work.

APPENDIX

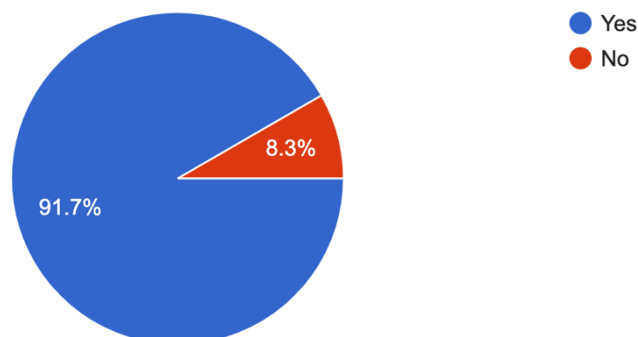
What is your highest level of education?

12 responses



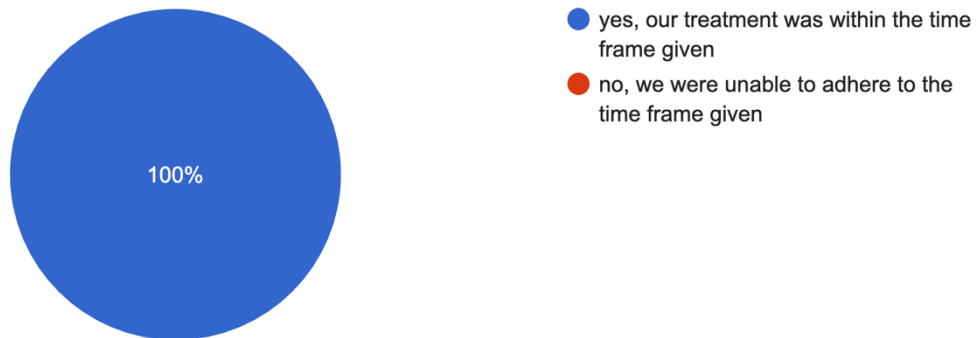
Did you consult an astrologer to get advice on when to schedule fertility treatment?

12 responses



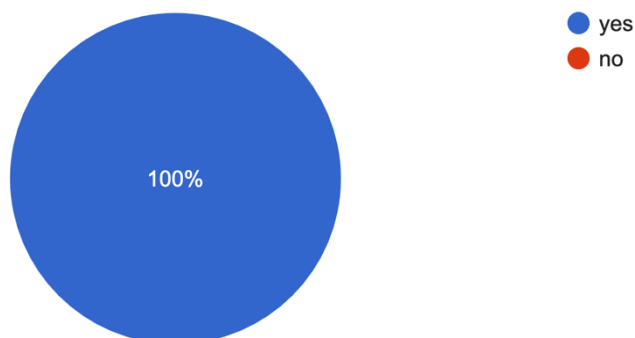
Did you schedule and complete your fertility treatment according to the time you were given by the astrologer?

12 responses



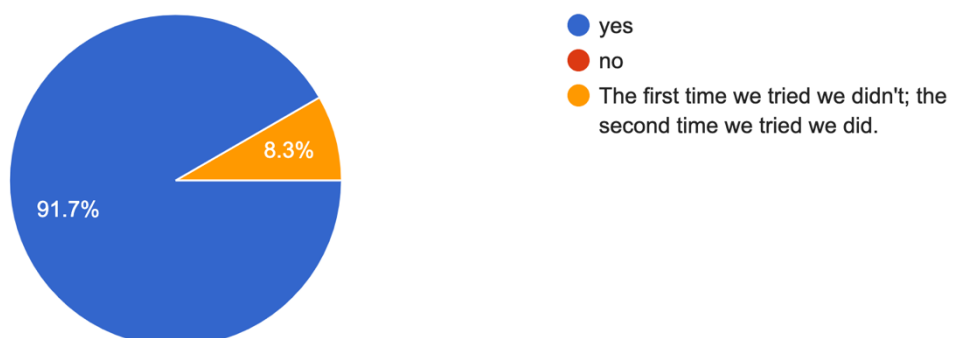
Was the time frame given by the astrologer clear and unambiguous and before you had scheduled your treatment?

12 responses



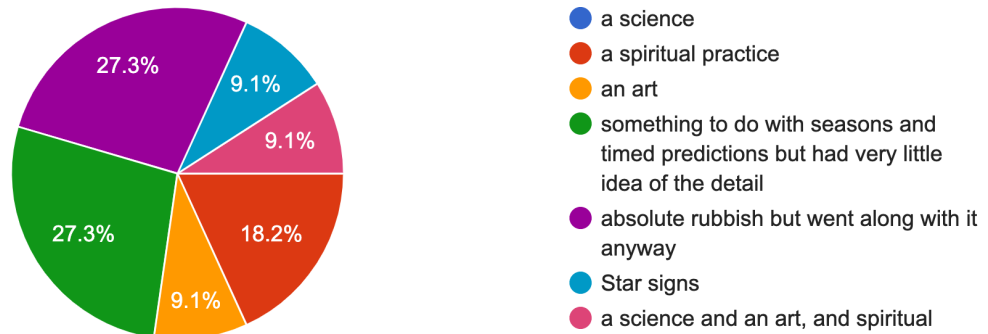
Did you get pregnant at the time predicted by the astrologer?

12 responses



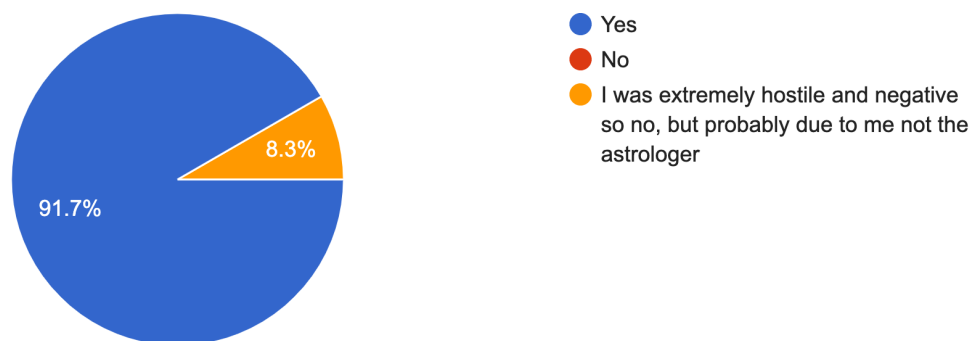
Before you consulted an astrologer what did you think astrology was?

11 responses



Did you find the consultation to be a safe space?

12 responses



BLANK QUESTIONNAIRE

How do people think astrology works and could the placebo effect be the reason why it does?

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A Research Project by Nicola Smuts Allsop

This questionnaire is part of a research project about how people think astrology helped them in order to get pregnant. I am conducting this research as a part of the Researching Contemporary Cosmologies module of the Sophia Centre's MA programme in Cultural Astronomy and Astrology at the University of Wales Trinity St David. I will be looking at data from this questionnaire and from further of in-depth interviews.

Your participation is really important as it will contribute to existing academic research on the many ways in which people engage primarily with the sky, but also with astrology, and will give testimony to its usefulness in alternative health care.

Your participation is voluntary, please leave any question blank if you do not wish to answer. I will give you verbal feedback by Skype once this module has been completed and marked. All data gathered will be used for research purposes only. If you wish to withdraw at any time you may do so and your information will be destroyed and excluded from the data presented in the paper.

All personal information will be kept confidential, according to the University of Wales's research regulations and pseudonyms will be used in the write up of this paper, unless you give permission as an option listed on the questionnaire.

* Required

1. Email address *

2. Your name *

3. Do you give consent for your name to be used as part of this research paper? *

Mark only one oval.

☐ yes

☐ no

4. Would you be willing to participate in a further interview?

Mark only one oval.

☐ Yes

☐ No

5. your current age is *

Mark only one oval.

- ☐ under 20
- ☐ 20-30yrs
- ☐ 30-40yrs
- ☐ 40-50yrs
- ☐ 50-60yrs

6. What is your highest level of education?

Mark only one oval.

- ☐ Matriculation Certificate, School Leavers Certificate, GCSE
- ☐ A-Level, Diploma Certificate from a Technikon or private educational institution
- ☐ University undergraduate degree
- ☐ University Post graduate or Master's degree
- ☐ PhD or equivalent
- ☐ Other: _____

7. How many cycles of IVF had you done before consulting with an astrologer?

Mark only one oval.

- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5
- ☐ more
- ☐ Other: _____

8. How many IVF cycles did you have after consulting the astrologer?

Mark only one oval.

- ☐ 1
- ☐ 2
- ☐ 3
- ☐ more
- ☐ Other: _____

9. Did you consult an astrologer to get advice on when to schedule fertility treatment?

Mark only one oval.

- ☐ Yes
- ☐ No
- ☐ Other: _____

10. Did you make the appointment yourself?

Mark only one oval.

- ☐ yes, I contacted the astrologer myself
- ☐ no, my partner made the appointment
- ☐ we made the decision together to consult the astrologer
- ☐ Other: _____

11. Was the appointment with the astrologer

Mark only one oval.

- ☐ in person or face to face
- ☐ over the telephone
- ☐ using Skype or other internet facility
- ☐ email communication only

12. Did you tell friends and family you were consulting an astrologer?

Mark only one oval.

- ☐ yes
- ☐ no
- ☐ Other: _____

13. If you didn't tell your friends and family you were consulting an astrologer was it because

Mark only one oval.

- ☐ you were embarrassed that people would think you were crazy to consult something like astrology for something so serious
- ☐ you were embarrassed that you were struggling with infertility
- ☐ combination of both of the above
- ☐ we had agreed not to discuss our fertility treatment with anyone else
- ☐ Other: _____

14. If you told friends and family you had consulted an astrologer, what response did you get?

Mark only one oval.

- ☐ They were supportive, they thought it was something new and interesting to try
- ☐ They had no idea what astrology was and had no comment
- ☐ They thought it was interesting but not helpful as it was not a proven scientific treatment and they thought it would interfere with medical treatments
- ☐ They thought you were a little desperate and that you were being exploited as a result, they viewed the astrology as potentially harmful to your emotional well being
- ☐ Other: _____

15. Did you schedule and complete your fertility treatment according to the time you were given by the astrologer?

Mark only one oval.

- ☐ yes, our treatment was within the time frame given
- ☐ no, we were unable to adhere to the time frame given
- ☐ Other: _____

16. Was the time frame given by the astrologer clear and unambiguous and before you had scheduled your treatment?

Mark only one oval.

- ☐ yes
☐ no
☐ Other: _____

17. Did you get pregnant at the time predicted by the astrologer?

Mark only one oval.

- ☐ yes
☐ no
☐ Other: _____

18. What age were you when you consulted the astrologer?

19. What other alternative methods or practices did you try in order to get pregnant before using astrology

Mark only one oval.

- ☐ prayer, within the context of your existing religion
☐ meditation
☐ yoga
☐ herbal remedies
☐ homeopathy
☐ acupuncture
☐ crystal healing
☐ positive affirmation and chanting
☐ wore special lucky colours or clothing on day of transfer
☐ visited a psychic or medium
☐ pagan worship - communing with nature
☐ astrology or planetary worship - e.g. full moon ceremonies
☐ Other: _____

20. Do/did you believe the moon affects your menstrual cycle?

Mark only one oval.

- ☐ Yes
☐ No
☐ Maybe

21. Before you consulted an astrologer what did you think astrology was?

Mark only one oval.

- ☐ a science
- ☐ a spiritual practice
- ☐ an art
- ☐ something to do with seasons and timed predictions but had very little idea of the detail
- ☐ absolute rubbish but went along with it anyway
- ☐ Other: _____

22. Did your astrology consultation change your perception of astrology? In your own words please say how

23. Did the astrologer adequately explain the limitations of astrology and clearly describe how it works in the context of your particular situation?

Mark only one oval.

- ☐ yes
- ☐ No
- ☐ Other: _____

24. Did you find the consultation to be a safe space?

Mark only one oval.

- ☐ Yes
- ☐ No
- ☐ Other: _____

25. Did you feel your astrologer was competent? Did the astrologer seem an expert in the field of fertility astrology?

Mark only one oval.

- ☐ Yes
- ☐ No
- ☐ Other: _____

26. What was the overriding feeling you had once you had concluded the consultation?

27. How would you describe the astrologer's "bedside manner"?

28. Did the astrologer maintain adequate eye contact during the consultation and did you feel like you were being heard?

Mark only one oval.

- ☐ Yes
- ☐ No
- ☐ Other: _____

29. How was the level of aftercare after the consultation? Did you feel supported and that you could ask for clarification or follow up questions?

30. Do you think you would have succeeded in getting pregnant without the astrology consult?

Mark only one oval.

- ☐ Yes
- ☐ No
- ☐ Other: _____

31. What was the most meaningful thing to you about the astrology consultation?

32. Is there something else you would like to add?

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