

**Synchronicity and life satisfaction: Are you more satisfied with your life when giving
meaning to coincidences?**

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PSB3E-BT15: Bachelor Thesis

2122_1a_06

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04, 2022

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Abstract

Synchronicities occur when special meaning is interpreted into two seemingly unrelated events, even though no causal connection between the two can be made. Previous research found several factors such as “Spirituality”, “vitality”, “relying on intuition”, “presence and search for meaning” and “extraversion” to be both positively related to a higher frequency of synchronicity experiences and “life satisfaction”. This study investigates the correlation between “life satisfaction” and “synchronicity frequency”. In order to measure the frequency with which individuals experience synchronicities the “Weird Coincidences scale” and its two subscales were used and their reliability was successfully validated. The results indicate a positive moderate relationship between the “satisfaction with life scale” and the “weird coincidences scale”. The effect appears to be loaded on the “agentic” subscale, which when isolated, showed statistical significance. This suggests that the attribution of meaning to random stimuli is connected to more life satisfaction. Furthermore, the difficulty of conducting scientific research on the topic of synchronicities is discussed. Due to the highly subjective nature of the phenomenon of Synchronicity using a paradigm that puts the establishment of causality as its goal poses great challenges. Instead, it is discussed that an approach that focuses on the individual’s experience of synchronicities and their possible benefits and dangers might be a more fruitful way to conduct further psychological research on this topic.

Keywords: synchronicity, meaningful coincidence, life satisfaction, meaning

Synchronicity and Life Satisfaction: Are you more satisfied with your life when giving meaning to coincidences?

When hearing a story of a coincidence that seems almost too fantastical to believe, one might begin to wonder what it is about this person to have such experiences much more frequently than others. As to this point, several factors such as vitality, spirituality, and relying on intuition have so far been suggested to describe individuals who experience meaningful coincidences, or “synchronicities” with a high frequency (Beitman, 2011). According to Beitman, a “high frequency” is defined as experiencing synchronicities at least “often” on average according to self-report. A clear number of such experiences is not given. Many factors that are linked to experiences of synchronicities have been found to be connected to positive emotions and an increased sense of meaning and purpose in life. This study will investigate the variable “life satisfaction” as an additional factor. The results will add to the body of knowledge regarding meaningful coincidences and will assess whether attributing meaning to seemingly unrelated events is connected to life satisfaction.

The concept of “Synchronicity” was first introduced by C.G. Jung to describe occasions where an individual experiences a meaningful connection between an internal psychological state and an external event that appears very improbable to the individual (Jung, 1952). An example that Jung gave in his introductory lecture on this topic, is to think of a friend (psychological state) whom you have not seen in years only to have this friend call you shortly after (external event). In another scenario, one might dream of a specific event that then plays out in the same way in real life someday in the future. According to Jung, these events do not cause each other. One is not a direct result of the other. Synchronicities can appear across vast distances of space (i.e. thinking of a person on the other side of the world and the person calling) and time (i.e. dreaming of an event in the future). Instead of having a causal relationship, they share a connection of meaning. For Jung, this meaning

would lay in the special significance the individual gives to this event. The phone call of a long-time friend might be given the meaning that one should go and visit the person. Or perhaps special importance is given to what the person says. This might provide a solution to an issue in a completely different life area. The meaning or the explanation for such a seemingly improbable event is therefore completely subjective. Synchronicities carry important personal significance and are sometimes even considered to be life-changing experiences by those who believe in their special meaning. This is still the definition used by researchers such as B.D. Beitman today and will also be used for this present study. The acausal and subjective nature of these phenomena has made the exploration of underlying testable and replicable mechanisms difficult. Some researchers are making use of quantum mechanical theories and look at synchronicities in the light of quantum entanglement (Jolij & Bierman, 2021). Still, Jung's theories on synchronicities have hardly held any scientific approval up today and are often considered pseudoscientific (Kerr, 2013).

Instead, mainstream science explains common occurrences of coincidences with probability theory (i.e. with so many things happening in the world it is rather “likely” for some things to share a connection). The attribution of meaning to such events is explained by confirmation bias, paranormal beliefs, and apophenia, or the detection of personally relevant patterns in random stimuli (Carroll, 2015; Johansen & Osman, 2015). Indeed, Van der Velde (2022) gave evidence for a significant positive relationship between paranormal belief and the frequency of synchronicity experiences. This, seemingly “unscientific” portrayal of the topic has not stopped researchers from investigating the phenomenology of such experiences. Beitman is today’s most prominent researcher with regard to the characteristics of coincidence experiences. In 2020, he founded the “Coincidence Project” which consists of a line of podcasts, and scientific studies. They aim at the systematic investigation of what individual

characteristics, such as personality traits, make a person more or less inclined towards such experiences and what individual effects they elicit.

A study by Coleman, Beitman & Celebi (2009) indicates that according to self-reports an estimated one-third of the general population experiences synchronicities “frequently”. Because synchronicities can have many different variations, there have been attempts to categorize the most common types. The “Revised Weird Coincidence Scale” (WCS-2) uses two domains “interpersonal” and “agentic” to classify these experiences (Coleman et al., 2009). The interpersonal scale includes items that describe coincidences related to an internal psychological state like a thought, feeling, or idea about another person that is then connected to an external event. For example, a mother experiences a sudden headache and later gets the information that at the same time her daughter fell on her head, suffering a slight concussion. The agentic scale on the other hand consists of items that look at coincidences where a certain change in life is apparent. An individual might encounter just the right person at the right time for subsequent advancements in life to happen. Other examples of this type include using coincidences to help make a decision or have a need met. A hungry person, walking through the park may struggle to decide between eating healthy or fast food. At that moment an apple falls on their head. This is then interpreted as a sign to better enjoy a fruit salad.

Different researchers have investigated the characteristics of individuals who seem to be prone to experience meaningful coincidences. A study by Coleman et al. (2009), indicated that people who scored high on spirituality and reported more religious experiences than the rest of the sample also reported more synchronicity events. The authors mention that this could be explained by the fact that people that are inclined towards spirituality often view synchronicities as interventions by some higher power and therefore give greater significance to coincidences. Another study showed that high levels of emotion, both positive and negative, with the factor “vitality” specifically, seem to predict greater synchronicity

frequency. This is in line with previous findings that link major life transitions, which are usually accompanied by intense emotions, with elevated reports of synchronicities (Beitman et al., 2010). According to Beitman et al., this is due to an increased amount of associations that are formed during highly emotional states. The same authors found another factor is to have a strong faith and reliance on intuition. This was attributed to the use of intuition, as opposed to rationality, in the process of giving importance to a coincidence. Instead of using probability theory to explain the coincidence, the more intuitive person lays greater importance on the feeling that this event elicits. Also, the search for, and presence of meaning, appeared to increase the frequency of synchronicity experiences. As an explanation, it is suggested that the search for meaning in general life transfers to searching for meaning in coincidences. Lastly, extraversion was found to be a significant predictor of synchronicity frequency. The authors don't mention any possible explanation, but it could relate to extraversion's facets of "positive emotions (enthusiastic)" and "excitement-seeking (adventurous)". As previously shown, an increased emotional affect and vitality are linked to experiencing synchronicities. This, combined with a tendency to look for exciting and adventurous, "story-like" connections in the world, might account for this effect (Kim et al., 2017).

The factors "spirituality", "vitality", "relying on intuition", "presence and search for meaning", and "extraversion" appear to predict high-frequency synchronicity reports, as outlined above. In order to justify a possible connection between synchronicity frequency and life satisfaction, there will now be put forth evidence that the same factors too are connected with higher scores on different measures of life satisfaction and other self-report questionnaires related to the concept of well-being. One study of over 500 UK undergraduates presented evidence that higher scores on the "Spirituality scale" (Nelms et al., 2007) also reported better health and life satisfaction (Anand et al., 2013). Park et al. (2010),

demonstrated that the self-reported presence of meaning was positively related to, again, life satisfaction, happiness, and positive affect. Interestingly, the search for meaning was only found to be predictive of life satisfaction for those who already had a high presence of meaning. Otherwise, the search for meaning showed a negative relationship with life satisfaction. Those who search for meaning, but do not feel its presence in their life appear less satisfied. A possible explanation is that when having a certain need to search for meaning, it is easier to have this need satisfied when being in a state of mind that facilitates experiencing a meaningful life. A next study looked at the relationship between an intuitive thinking style, as opposed to a rational style, and general happiness. The results indicated that demonstrating intuitive decision-making mediated a positive relationship between an intuitive thinking style and happiness (Stevenson et al., 2016). This suggests that there is a connection between basing one's decision on intuition rather than on thinking might contribute to life satisfaction. A possible reason for that might be that the reliance on rationality for decision-making leaves more space for doubts, as there are many possible outcomes to consider when attempting to "think them through". Trusting in a "gut feeling" makes such doubts obsolete. However, the concept of "intuition" is difficult to grasp and it is not clearly defined what would constitute an intuitive or rational thinking style. A person, for instance, who relies naturally on their rationale might consider this to be intuitive. Other studies looked at a possible link between extraversion and life satisfaction (Kim et al., 2018; Connolly & Sevä, 2021). Their results suggest that they are indeed positively related. Especially the facets "Positive emotion" and "Assertiveness" were predictive of satisfaction with life. Splitting the data by gender it was suggested that "Positive emotion" was the primary predictor for women and "Assertiveness" was primarily important for men.

Based on previous research, it seems that the factors "spirituality", "vitality", "relying on intuition", "presence and search for meaning" and "extraversion" can predict people that

are prone to synchronicities, as well as appear to be indicators of greater life satisfaction. The present study is the first to test directly whether an association between life satisfaction and the frequency of synchronicity experiences is apparent. The primary hypothesis is that Spearman's rho between the Weird Coincidence Scale and the Life Satisfaction Scale is of at least moderate strength ($r > 0.3$).

Method

Ethics Statement

Ethical approval for this study was granted on the 25th of January 2022 by the Ethical Committee Psychology (ECP) affiliated with the University of Groningen, the Netherlands (PSY-2122-S-0147). Informed consent was obtained from all participants included in the study.

Participants

In total 38 participants took part in the online study. 22 of those were excluded due to the incompleteness of the survey. 16 were eligible for data analysis. A snowball sampling method was used which encourages participants to share the study with friends and family.

Research Design and Procedure

This study is part of a bachelor thesis project. It follows a correlational design, where the relationship between the results of three self-report questions was assessed. After having given informed consent, a comprehensive description of meaningful coincidences was given (Appendix). This was followed by the "Weird Coincidences Scale-2" (WCS-2). Then the "Satisfaction With Life Scale" (SWLS) and the "Paranormal Belief Scale" (PBS) were administered. Participants were asked for their country of origin (8 Dutch, 5 German, 2 Thai, 1 Namibian). Finally, the participants were given the possibility to indicate dishonest

responses. The duration of the study was approximately 15 to 20 minutes and all materials were in English.

Measures

Weird Coincidences Scale - 2 (WCS-2)

The WCS-2 (Coleman, Beitman & Celebi, 2009) measures the frequency in which the respondent experiences meaningful coincidences on a 5-point Likert frequency scale from “Never” (1) to “Very Frequently” (5). The total number of 13 items is divided into two factors “Interpersonal” and “Agentic”. In previous studies, the average frequency score of the “interpersonal” scale was 2.66 (in-between “Seldom” and “Occasionally”) with a standard deviation of 0.59. The “Agentic” scale demonstrated a similar mean of 2.49 with a standard deviation of 0.65. The WCS-2 shows inter-item reliability of 0.7. A value like 0.7 indicates moderate, but acceptable internal consistency (Cohen & Swerdlik, 2005).

Satisfaction with Life Scale (SWLS)

The SWLS aims at measuring self-reported life satisfaction (Diener et al., 1985). In 5 items it assesses to what extent the individual agrees with statements of general satisfaction with life. It has a 7-point response scale from “Strongly Disagree” (1) to “Strongly Agree” (7). A score of 20 represents a neutral point, 5-9 extreme dissatisfaction, and 31-35 extreme satisfaction in one’s life. The inter-item reliability for the scale is around 0.84, indicating high internal consistency. Additionally, it shows good test-retest correlations (.84, over a month interval) and is correlated with measures of mental health, and is predictive of future behaviors such as suicide attempts (Diener et al., 1985).

Results

Synchronicity frequency was positively correlated with life satisfaction ($r=0.312$)

Table 1 shows the correlations between the Life Satisfaction Scale and the Weird Coincidence Scale with its subscales. The variables follow an ordinal scale, are paired observations, and show a monotonic relationship. Therefore all assumptions are met to perform a correlational analysis with Spearman's Rho. The primary hypothesis that the correlation between *LSF* and *WCS_{TOTAL}* is $r>0.3$, is supported. Additionally, the *WCS_{AGENTIC}* subscale shows a significant correlation of .502* while the *WCS_{INTER}* shows a correlation of .126. The strength of the effect appears to be loaded on the Agentic subscale.

Table 1. Correlation Matrix in Spearman's rho.

	<i>LSF</i>	<i>Lower C. I.</i>	<i>Upper C. I.</i>
<i>WCS_{TOTAL}</i>	.312	-.218	.699
<i>WCS_{AGENTIC}</i>	.502 *	.009	.799
<i>WCS_{INTER}</i>	.126	-.395	.585

Note. *LSF* = Life Satisfaction Scale; *WCS_{TOTAL}* = Weird Coincidence Scale, all items; *WCS_{AGENTIC}* = Weird Coincidence Scale, only items from the Agentic subscale; *WCS_{INTER}* = Weird Coincidence Scale, only items from the Interpersonal subscale; * $p < .05$; 95% C.I.

Table 2 looks at differences between the scores that the participants indicated and the results that were obtained from the original studies. Two-sample t-tests were used. No significant differences were found, indicating that the original results were validated. This supports the test-retest reliability of said measures.

Table 2. Scores of WCS and LSF measures

	Mean	<i>SD</i>
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WCS_{TOTAL}	2.71	0.71
$WCS_{AGENTIC}$	2.96	0.76
WCS_{INTER}	2.54	0.84
LSF	4.6	1.05

Note. LSF = Life Satisfaction Scale; WCS_{TOTAL} = Weird Coincidence Scale, all items; $WCS_{AGENTIC}$ = Weird Coincidence Scale, only items from the Agentic subscale; WCS_{INTER} = Weird Coincidence Scale, only items from the Interpersonal subscale

Note. For all tests, the alternative hypothesis specifies that the means of the present data are unequal to the original sources (See Coleman, Beitman & Celebi (2009) and Diener, Emmons, Larsen & Griffin (1985)).

Discussion

With this study we investigated a possible association between synchronicity frequency and life satisfaction. It was hypothesized that at least a moderate correlation would be found. As part of an explorative analysis, the two subscales of the “Weird coincidences scale” were also taken into account. The results support the hypothesis that there is a moderate relationship between synchronicity frequency and life satisfaction. Additionally, the effect seems to be heavily loaded on the agentic subscale, as opposed to the interpersonal subscale. The agentic scale assesses meaningful coincidences that are connected with changes in life. Examples include unexpected advancements at work or spontaneously having one’s needs met. The interpersonal scale on the other hand deals with connections between other people, like texting one another at the precise same time (Coleman et al., 2009). One explanation for why this effect occurs could be the fact that the items of the agentic scale carry themselves a greater positive tone than the interpersonal scale does. Experiencing “advancements at work or in education”, or “having a need met” frequently, might contribute more to greater life satisfaction than simply meeting people in e.g. “out-of-the-way” places as the interpersonal scale measures.

Limitations and future directions

The greatest limitation with regards to the validity of the results is the sample size. The 16 participants are far from the actual number of 85 that would be required to reach a power of 0.8. Furthermore, the sole reliance on self-report with regards to life satisfaction is problematic. A multifaceted concept such as life satisfaction is bound to find limitations when being assessed with a single self-report scale. In future research other more objective measures such as SES, and IQ could be considered. Furthermore, it could be investigated what parts of life satisfaction are associated with synchronicity frequency. The study of this field is rather new and, there have not yet been found ways to reliably establish causal relationships. If there will be more studies about the precise conditions that a person manifests, in order to experience synchronicities, then perhaps manipulations could be considered.

However, when taking a more theoretical stance, it appears much more difficult to try to establish causality through manipulation. Studies on synchronicities from a quantum physical perspective suggest that even the attempt to investigate such phenomena makes them disappear, or displace them into another “system”. (See “displacement effect”, Schwartz et. al, 2005). Using such a line of research is more suitable to investigate the phenomena outside of the human experience, though both the “hard” (Quantum physics) and the “soft” (Psychology) scientific approaches should be continued to investigate the phenomena of “Synchronicity” alongside each other. The question of what “synchronicities” are largely connected to the question of what “randomness” actually means. Carl Jung himself said that in fact there is no randomness, there is only not enough knowledge to predict (Jung, 1997). In a way predicting is what science has been all about since the development of tools and communities at the dawn of humankind. We have always been inventing hypotheses and testing what we thought useful to explore. A big shift happened when machines were created that we could use in order to exteriorize parts of our human capacity. This brought the process of development into

a less subjective (i.e. human biases) realm. Still, there always needs to be a goal that must necessarily be beset by a human. Therefore, the subjective cannot be excluded when further turning the wheel of scientific investigation.

Much research in Psychology is centered on establishing a “causal” relationship. This means that one of the two variables must precede the other in terms of time (temporality), and there is sufficient evidence that only this variable has an effect on the other (causality). Now, when Carl Jung proclaimed that the concept of “Synchronicity” is driven by both acausal and atemporal forces it is indeed rough to wrap one’s head around. How can one truly test a hypothesis if the research system might have been influenced by factors before the system was even established? How is it possible to try to find causality in a phenomenon that is by definition acausal? The answer seems to be that the framework with which these phenomena are investigated needs to change. Though this cannot be part of psychology. Psychology should not be worried about metaphysics. It is the science of the “soul” and has its good place in further understanding how humans interact with synchronicities and how this might be of benefit to us. However, with quantum mechanics, the distinction between “human” and “non-human” phenomena becomes more and more arbitrary. As demonstrated in the “double-slit” experiment, the mere observation of phenomena on a quantum level can in fact change the result of the measurement and there is the idea that those phenomena only come into being at the moment of observation (Davisson 1928). This connects to synchronicities in so far as they too need a human observer to be manifested. One might say they are necessarily a human experience, and yet they have to have an element that is outside human experience. Following this line of thought one perhaps concludes that everything is nothing but human experience and the world would disappear without observation. Of course, we intuitively know that the milk will surely go bad when we forget to put it back in the fridge, however, we cannot know this on an absolute level. Ultimately there always needs to be an observer to

observe anything and in the absence of such an observer, the processes are necessarily unknown to us. One might record in various ways and yet the output information will be nothing but a representation of the information whose filter was put on by a human and again, the information would only be known to us in the moment of observation. The study of synchronicity is a great gateway into this conundrum because it puts the attribution of subjective meaning at its center. Finally, one's "meaning-filter" in life is the very foundation of human experience, and to have it oriented towards life satisfaction instead of suffering should be desired by all.

Theoretical and practical implications

The strong difference in the effect for the two different subscales further validates apparent groupings in the questionnaire. The "agentic" subscale in particular seems to be strongly connected to life satisfaction. The items of that scale suggest that especially the factors "search for meaning" ("After experiencing meaningful coincidence, I analyze the meaning of my experience."), "intuitive decision making" ("Meaningful coincidences help determine my educational path") and a certain "positive affect" (e.g. I need something, and the need is met without my having to do anything.) are relevant. This links back to the factors that are predictive of life satisfaction as demonstrated by previous studies.

Giving "life satisfaction" the role of a factor for "synchronicity frequency" shines a new light on the topic. Even though the "weird coincidence scale" might not directly translate into living a more or less meaningful life, it suggests that interpreting meaning in random information is associated with greater life satisfaction. Further investigation of this line of thought could have benefits for clinical patients that struggle with psychotic symptoms such as apophenia, or seeing patterns in random stimuli, to the extent of dysfunction. The question of psychological health is always a question of balance. Seeing the world as gray and unlively, fully void of meaning just as easily spirals one into psychiatry as not being able to take off

those pattern-inducing glasses one's eyes. If I were to choose between those two, I'd honestly rather experiment with the latter and the results of this study partly reflect that I am not alone in this. I see life as a process of integration of what is not yet known. And the unknown cannot be revealed if one's filter is too strong and will only see in gray. Even overdosing on color and meaning will contribute to the integration eventually. For such individuals, it is difficult to choose the appropriate lens and prism at the appropriate times, and here a clinical psychologist can help to lend one pair of glasses out of their glove compartment box and go for a ride. No matter how bright the sun is during the day it is sure to descend in the evening. The next day it will now be easier to handle the blinding lights and be delighted instead; in the world that the sun too shines upon.

Conclusions

Taken together, the results hint at a positive relationship between life satisfaction and the frequency with which the participants experience synchronicities as measured by the "Weird Coincidence Scale". Furthermore, it is especially the "agentic" scale of the questionnaire that seemed especially predictive of "life satisfaction". The challenges of high subjectivity that arise when conducting psychological research on synchronicities are probably best dealt with by choosing an approach that puts the individual's experience of meaningful coincidences at its center. This puts the focus on the factors that characterize those who confer benefits for the individual life in connection with experiencing synchronicities. The deciding factor might not be the simple frequency, but rather other moderating aspects such as the degree of living a meaningful life with the intent of purposeful activities, or a more intuitive decision-making style. Looking at what makes a "satisfied" life and a life of meaning appear to be closely related.

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Appendix

Explanation of meaningful coincidences (synchronicities)

What follows is a questionnaire that aims at measuring how often you experience meaningful coincidences, also called "synchronicities".

Synchronicities are phenomena in which people interpret two separate—and seemingly unrelated—experiences as being meaningfully intertwined, even though there is no evidence that one led to the other or that the two events are linked in any other causal way.

A synchronicity may be as simple as seeing a word repeatedly and looking for meaning in that experience. In a more complex example, imagine that someone has a thought about an old friend; shortly after, he runs into her.

Now to the questionnaire. Remember that all data will be handled anonymously and cannot be traced back to you.