# About quantising unconscious decision processes and their origin and proving Intelligent Design 

Martin K. Dubreuil ${ }^{1}$, Sergii Koliada

April 6, 2014


#### Abstract

Prompted by previous research results we analysed human decision processes for unconscious patterns. Like former studies [1, 2] we were able to find law-like patterns that were not consciously created. We calculated the residual uncertainty about the pattern to $1: 1,000,000,000$ and proved a high correlation ratio for the data source related to the found pattern through an intra class correlation test (3.2). We showed that conscious (3.3) and unconscious human behaviour and natural selection (3.4) are not able to explain this result. This includes the possibility to prove Intelligent Design (3.4).


## Contents

1 Introduction . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1
2 Defining the data source and the shape of the pattern . . . . . . . . . . . . . . 2
3 Results . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
3.1 The pattern itself . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
3.2 Proving the pattern . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 7
3.3 Origin . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 10
3.4 Intelligent Design . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 12

4 Appendix A . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 13
5 Appendix B . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 26
6 Appendix C . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 28
References . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 30

## 1 Introduction

Some time ago we initiated a contest between students, about who was able to create the most random data, with a price to win. We first used the gained data set for intraclass and interclass analysis. Then we searched for other unusual characteristics. There were 318 bit strings entered with an average length of 80 digits. We discovered, that not a single time „00000000" or „11111111" were entered. By assuming true randomness for $318 * 80=25440$ digits, we should have found a bit string composed of exact 8 equal digits about 100 times. The probability for a sequence like „,00000000" is

[^0]$(0.5)^{\wedge} 8=1: 256$. For a single sequence of 80 digits it is unlikely that a row of 8 equal digits appear in it. But for a row of $318 * 80=25440$ digits it is very unlikely that there is no row of 8 equal digits. We assumed this was caused through the intention to produce high quality random data by the students. It is unlikely that eight equal digits are contained in a short row of 80 digits, so no one entered this sequence. We asked a few students afterwards under which conditions they decided to enter a „0" or „1" to produce a random bit string. Most of them answered, not to have thought about a specific pattern while entering the bit string and just pressed the „0" and „"" button how they „felt" at this moment. This made us curious if the way a person „feels" can be quantised by analysing the data that this person creates at this moment.

Feelings have their origin mainly in evolution to grant the ability to survive. Without the feeling „love" the mankind would already have died out [3]. Other scientists already found law-like patterns in human preference behaviour that are based on unconscious processes [1]. We were curious if we were able to reproduce the results.

We were able to reproduce the previous results and found law-like patterns ourselves. Especially the absolute correctness that we found as well was impressive. We found until now no evidence that indicated flaws. We found the same patterns for different cultures.

## 2 Defining the data source and the shape of the pattern

Bit strings are not suited to examine them for preferences, because they consists of only two digits. We didn't had the resources to sustain large experiments with a lot participants like [1]. So we decided to choose a free accessible data set for our studies. While a single author mostly don't write a lot ( $>100$ ) books, we chose three different television series that have been produced in sufficient amount to undergo some intraclass correlation tests. The first one was „Star Trek: The Next Generation", which will be examined here in detail, with a main cast of 11 persons. This series can be watched free and legal through online streaming ${ }^{2}$. Furthermore we examined the series „Mr. Bean", produced in England, and the series „Vicky the Viking", produced in Japan, Austria and Germany. We were able to prove a pattern that can be found in all three series.

For „ST:TNG" the data basis contain seasons $1,3,4,5$ and 6 . We skipped season 2 for the different main cast in this season. We skipped seven additionally episodes because they are continuations of former episodes. In total there are 123 episodes.

Before creating a pattern, the basic outline must be defined. According to [1] every time a person is avoided, every time a person gets a positive benefit and every time a person just appears will be observed. This are equal outlines to the study that found patterns in preferences regarding approaching or avoiding objects.

[^1]An exemplary pattern could look like this:

|  | E1 | E2 | E3 | E4 |
| :--- | :--- | :--- | :--- | :--- |
| Jean-Luc Picard | $*$ | $*$ | - | $*$ |
| William Riker | $*$ |  |  |  |
| Geordi La Forge | $*$ | $*$ |  | $*$ |
| Worf |  | $*$ | $*,+$ |  |

Table 1: An exemplary pattern.
To describe over time which persons get a positive benefit or get a disadvantage (are avoided) the pattern will be divided into different events that allows an appearance and a person to be affected positively or negatively. Every „*" allows an appearance and every „,"" or „-" allows a person to be affected positively or negatively. If a person appears who does not appear at the current event, but can appear at the next event the pattern moves on and other persons can be affected positively or negatively. An example: If E1 is the current event, then „Jean-Luc Picard" and „William Riker" (ST:TNG) can appear together and discuss. If „Worf" appears the next event is triggered. The event after E2 can only be triggered if „Worf" is affected positively or „Jean-Luc Picard" is affected negatively and so on.

A person counts as appeared if this person is clearly visible, is named or if the person starts to speak. If a person gets interrupted while speaking through someone else and then starts to speak again it counts as an other appearance. Equally if a person walks away and becomes visible again after this disappearance. This way a person that starts talking can appear and can talk about sickness and is affected through this negatively without appearing at the same time ${ }^{3}$. Only the first appearance after a disappearance does count. Otherwise a person that started speaking once or appeared once would never appear again and no consistent pattern could be created.

In this situation ${ }^{4}$ :
Data: „Captain!"
first Data appears because he started to speak. Then Picard appears because he is named. If Data wasn't already visible but is visible shortly after he asked for the Captain, Data appears again.

[^2]The following short forms will be used:

| Jean-Luc Picard | $=$ P.Pi |
| :--- | :--- |
| William Riker | $=$ P.Ri |
| Geordi La Forge | $=$ P.LF |
| Worf | $=$ P.Wo |
| Deanna Troi | $=$ P.Tr |
| Data | $=$ P.Da |
| Beverly Crusher | $=$ P.BeC |
| Wesley Crusher | $=$ P.WeC |
| Tasha Yar | $=$ P.Ya |

If „Jean-Luc Picard" appears, *P.Pi will be used. If „Jean-Luc Picard" is affected positively or negatively P.Pi+ or P.Pi- will be used.

If there are not enough appearances allowed the pattern would not fit if many persons appear at the exact same time in an episode. If too many persons are allowed to appear at the same event, the pattern would stuck and would not move on.

## 3 Results

The following describes the pattern how we found it in ST:TNG, which did also fit for the two other series „Mr. Bean" and „Vicky the Viking".

### 3.1 The pattern itself

It was possible to find a pattern that fits with all 123 episodes. For a complete description there are three other persons necessary:

| P.Al | green, big/wide/a lot, lack of knowledge, do nothing, holiday, very old, <br> starships, standby, science, stone, death, 4 |
| :--- | :--- |
| P.BW | lie, human/humanoid, neutral, colour black/white, silver, ice, cold, <br> invisible, 12, 6 |
| P.En | energy, lovely |

Table 2: Persons that are not part of the ST:TNG main cast.
P.Al is needed to describe situations in that a lot of something appears like a lot persons. Every time there are more than five persons visible at the same time this counts as appearance of P.Al instead an appearance of every person on its own ${ }^{5}$. Every mentioned 4 or anything with the colour green counts as appearance of P.Al. Every Starfleet ship that appears counts as appearance of P.Al. If one of this ships gets in trouble this counts as P.Al-. The green aliens or the very old man that appear in $1 \times 07$

[^3]and 1 x 16 count both as P.Al, too.
The person P.BW appears wherever a 6 or 12 is mentioned or the colour black/white or silver appears. The Romulans in ST:TNG count as P.BW.
P.En appears wherever the word energy or the word lovely is mentioned. As person P.En appears often as young women. The warp core as source of all energy counts as an appearance of P.En too if it is shown or mentioned.
P.Ya additionally appears through the colour yellow, the number three or mentioning the earth.

Mostly all unfriendly aliens are the same person as P.Wo, like Cardassians or Klingons.

Additionally marks that was looked for:

| Short form | Additionally observation |
| :--- | :--- |
| M1 | open door, key, colour black/red, French, „not this" |
| M2 | weapon, kisses, „What's that?", time travel |
| M3 | humour |
| M4 | fire |
| M5 | water |
| M6 | theft, children, try to get information (example: sensors), direct contact |
| with unfriendly people, dance |  |, | M7 | drink |
| :--- | :--- |
| M10 | past |
| M11 | unbelievable attainment |
| M12 | temporary interruption |
| M13 | long time |
| M14 | short time, in a hurry, smoke, gas |

Table 3: Additionally marks that was looked for.
The criterions that are named after each other appeared at the same places, like for M14 short times and smoke.

Locked doors seem to be also part of the pattern like for $3 \times 09,3 \times 16,6 \times 19$ and $6 \times 22$. Similar with stop drinking for $3 \times 06$ and $3 \times 21$.

The full pattern found for the 123 episodes looks like this:

|  | E1 | E2 | E3 | E4 | E5 | E6 | E7 | E8 | E9 | E10 | E11 | E12 | E13 | E14 | E15 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| P.Pi | * | * | *, - |  | *, + | - | *, + | *, - | *, + | * | - | * | - | *, + | *, - |
| P.Ri |  | * | * |  | * | - | * | *, - | * |  | *, + |  | *, + | *, - | *, + |
| P.LF | * | * |  |  | *, + |  | *, + | *, - | * | *, + | * | - | * | * | *, + |
| P.Wo | * |  | * | * | *, - | * | *, - | *, + | - | *, + | *, - |  | *, - | *, + | - |
| P.Tr | *, + |  | * | * |  | * | * | *, + | *, - |  | - | * | - | * | *, - |
| P. Da ${ }^{6}$ | * |  | * |  | * |  | * | * | - | * | *, + | - | *, + | *, - | *, + |
| P.BeC |  | * |  |  | * |  | * |  | * |  |  | * |  | *, - | * |
| P.WeC | *, - | * |  |  | * |  | * | - | * |  | *, - |  | *, - | *, + | *, - |
| P.Ya |  | * | * |  | * |  | * |  | * |  |  | * |  | *, - | *, + |
| P.Al | *, - |  | * | *, - |  | * | * | - | *, + |  |  | *, - |  | *, - | *, + |
| P.BW | *, + | - | * |  | *, - |  | *, - | *, + | - |  | - | * | - | *, + | *, - |
| P.En |  | * | * |  | * |  | * | - | * |  | - | * | - |  | * |
| P. $\mathrm{Gu}^{7}$ |  | * |  |  | * |  | * |  | * |  | * |  | * | * |  |
| P. $\mathrm{Ko}^{8}$ | * |  | * |  |  |  |  |  | - | * | *, - |  | *, - | * | - |
| P.WSA ${ }^{9}$ | * |  | * |  | * |  | * |  |  | * | * |  | * | * |  |
| M1 | * |  | * |  |  | * |  | * | * |  | * |  | * | * |  |
| M2 |  |  |  |  | * |  | * |  | * |  |  | * |  | * | * |
| M3 ${ }^{10}$ |  |  | * |  |  |  |  |  |  |  |  |  |  | * |  |
| M4 |  | * |  | * | * |  | * | * | * |  |  | * |  |  | * |
| M5 | * | * | * |  | * |  | * | * |  |  | * | * | * | * |  |
| M6 | * |  | * | * |  | * |  | * |  |  | * |  | * | * |  |
| M7 | * |  |  |  | * |  | * |  | * |  | * |  | * | * |  |
| M10 |  |  |  | * |  |  |  |  |  |  |  | * |  |  |  |
| M11 |  |  |  |  |  |  |  |  | * |  |  |  |  |  |  |
| M12 |  |  |  |  |  |  |  |  |  |  |  | * |  |  | * |
| M13 ${ }^{10}$ |  |  |  |  |  |  |  |  |  |  |  |  |  | * |  |
| M14 | , |  |  |  |  |  |  |  |  |  |  |  |  |  | * |

Table 4: The pattern for the beginning of 123 ST:TNG episodes.

[^4]The events 10 and 11 don't have to appear. E4-E8 can be absent together. How the events have to appear after each other therefore looks like this:


Figure 1: Row of events.
At the events 1, 3, 4 and 5 the pattern is allowed to start.

### 3.2 Proving the pattern

Appendix A and B show the pattern fitting with all 123 episodes. The probability that this pattern is caused through chance can be calculated as follows:

Originally this pattern was only designed to work with the 76 episodes from season 1,3 and 4 . After we designed this pattern we tested it with the fifth season and it fit with nearly no other changes. Before a small adjustment to fit with all 24 episodes again, the pattern did fit for season 5 for 23 episodes and did not fit for 1 episode. Therefore the probability that this pattern is caused through chance is $\mathrm{p}=24^{*}\left(\mathrm{x}^{\wedge} 24\right)$ with x as probability, how often the pattern does fit with a single episode through chance.

We were able to determine that this pattern is more extensive than we have introduced it in the previous section. There are at least three more events we know about that probably will fit for all episodes. We haven't added this yet, but we assume the pattern found until now is only a small part of a larger pattern. Therefore searching at a later time for the pattern is equal to a test on random data. We assumed for the first season every episode would start after the opening credits. This time the pattern fit only every second time (Appendix C). Therefore the probability for this pattern to be caused through chance is $\mathrm{x}=0.5$. The probability that a pattern for 23 episodes out of 24 episodes were caused through chance is therefore $\mathrm{p}=24^{*}\left(0.5^{\wedge} 24\right)=1.4^{*}\left(10^{\wedge}-6\right)$. This is equal to a one in a million chance ( $1: 1,000,000$ ). This shows that the existence of the found pattern is a million times likelier than its non-existence.

The intraclass correlation test will be done according to [4]. Every episode will be rated by all 15 parts of the pattern (table 4). A zero rating is given if a part of the pattern doesn't fit and an one rating if it does fit. For the fifth season the pattern did fit 23 times and did not fit 1 time, where the last 3 parts of the pattern did not fit.

Therefore every episodes true score $\left(b_{j}\right)$ and all particular ratings $\left(\mathrm{ab}_{\mathrm{ij}}\right)$ for $\mathrm{i}=1,2, \ldots$ , k with $\mathrm{k}=15$ and for $\mathrm{j}=1,2, \ldots, \mathrm{n}$ with $\mathrm{n}=24$ are

$$
\begin{gathered}
b_{j}= \begin{cases}1 & \text { if } j<24 \\
0 & \text { if } j=24\end{cases} \\
a b_{i j}= \begin{cases}1 & \text { if } j<24 \text { or } i<13 \\
0 & \text { if } j=24 \text { and } i \geqq 13\end{cases}
\end{gathered}
$$

The intraclass correlation coefficient for this case is:

$$
I C C(3, k)=\frac{B M S-E M S}{B M S}
$$

with

$$
\begin{aligned}
B M S & =k \sigma_{T}^{2}+\sigma_{E}^{2} \\
E M S & =\frac{k}{k-1} \sigma_{I}^{2}+\sigma_{E}^{2}
\end{aligned}
$$

with $\sigma_{\mathrm{E}}{ }^{2}=0$ as variance for the random error because we use a not changing data source that allows us to rate it arbitrary often.

The other variances are

$$
\begin{aligned}
\bar{b} & =\frac{1}{n} \sum_{j=1}^{n} b_{j} \\
\overline{a b} & =\frac{1}{n \cdot k} \sum_{i=1}^{k} \sum_{j=1}^{n} a b_{i j} \\
\sigma_{T}^{2} & =\frac{1}{n} \sum_{j=1}^{n}\left(b_{j}-\bar{b}\right)^{2} \\
\sigma_{I}^{2} & =\frac{1}{n \cdot k} \sum_{i=1}^{k} \sum_{j=1}^{n}\left(a b_{i j}-\overline{a b}\right)^{2}
\end{aligned}
$$

leading to

$$
\begin{aligned}
I C C(3, k) & =\frac{B M S-E M S}{B M S}=\frac{k \sigma_{T}^{2}-\frac{k}{k-1} \sigma_{I}^{2}}{k \sigma_{T}^{2}} \\
& =\frac{15 \cdot 0.039-\frac{15}{14} \cdot 0.008}{15 \cdot 0.039}=0.985
\end{aligned}
$$

which shows a high intraclass correlation ratio for the data source related to the found pattern.

We tested the pattern again for season 6. For season 6 two changes were applied to still fit with all episodes. Both additions didn't made the pattern fit less good with all other episodes. Before the two additions the pattern did fit for 20 episodes and did not fit for 3 episode. Because we used the same pattern we can merge season 5 and 6 and have therefore for the originally pattern 43 episodes that did fit and 4 episodes that did
not fit. The probability therefore is

$$
p=\binom{47}{4} \cdot 0.5^{47}=1.3 \cdot 10^{-9}
$$

This is even above 5 sigma that is used in particle physics for the declaration of a discovery [5]. This probability is equal to a $99.99999987 \%$ certainty about the pattern.

Additionally we want to add a more detailed comparison between season 6 and the random data out of season 1. Both results are displayed more graphically in Appendix B. For table 6 (season 6) the pattern did fit with all episodes after two adjustments for the pattern. For table 7 (random data out of season 1) the pattern did fit every second time. For table 6 the pattern started with „E3 $\rightarrow$ E9" 9 times, with „E5 $\rightarrow \mathrm{E} 6 \rightarrow \mathrm{E} 7 \rightarrow \mathrm{E} 8 \rightarrow \mathrm{E} 9$ " 9 times and with „E3 $\rightarrow \mathrm{E} 4 \rightarrow \mathrm{E} 5 \rightarrow \mathrm{E} 6 \rightarrow \mathrm{E} 7 \rightarrow \mathrm{E} 8 \rightarrow \mathrm{E} 9$ " 5 times. For table 7 the pattern started for the given cases 9 times, 3 times and 0 times for the 12 fitting episodes. While for table 6 long patterns and short patterns appearing similar after each other, for table 7 short patterns are favoured. This indicates that table 7 (random data out of season 1) doesn't actually contain a pattern, because short patterns that fit easier are mainly found. For table 6 (season 6) long patterns are not disadvantaged, indicating a higher probability for an actually existing pattern than for the other test.

### 3.3 Origin

There are no cultural differences. We examined further series and found the same pattern. The series „Mr. Bean", produced in England, does fit for all 14 episodes with „Mr. Bean" as P.WeC and „The other person" as P.Ya. The series „Vicky the Viking", produced in Japan, Austria and Germany, does also fit for the first season, with „Vicky" = P.Da, „Halvar" = P.Wo, „Tjure" = P.BW, „Snorre" = P.Pi, „Urobe" = P.Al, „Faxe" = P.Wo, „Gorm" = P.Ko, „Ulme" = P.Ya, „Ylva" = P.BW and „Ylvie" = P.Tr. To fit with all 26 episodes only for M5 (Water) changes were applied. The previous pattern for M5, based on ST:TNG, was anyway mainly guessed, since there is not much water in ST:TNG.

It is unlikely that ST:TNG was produced with the intention to let people always appear and be affected in a similar way. Even if a few writers had decided to consciously write all episodes in a similar way, this series heavily relied on fan scripts [6], who were certainly not informed about any secret guideline. To create this pattern consciously for all three series all writers must had worked together and not after each other, like for ST:TNG and „Mr. Bean" around 1990 and „Vicky the Viking" around 1975.

While the pattern itself was always the same, the way the pattern started changed. The following table shows where and how often the pattern started for every season:

|  | Season 1 | Season 3 | Season 4 | Season 5 | Season 6 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| E1 | 2 | 5 | 3 | 2 | 0 |
| E3 | 13 | 11 | 11 | 17 | 14 |
| E4/E5 | 9 | 10 | 11 | 5 | 9 |

Table 5: Where and how often the pattern started for every season.
While season 1, 3 and 4 behaved similar to each other, season 5 and 6 are different. An explanation could be, that executive producer Gene Roddenberry died during season 5. He believed that personal conflict would not longer exist in future and this seemed to be beyond the reach of most writers. After his death this writers joined the staff again and finally for season 6 internal conflict among the crew became a common plot ingredient again [7]. This could explain the different behaviour for season 5 and 6 . This example shows, plots that are written with different intentions are able to change where the pattern starts, but the pattern itself stayed the same.

Because different conscious intentions for plots, different times (1975/1990) and different cultures (Austria, England, Germany, Japan, USA) don't change the pattern we assume an unconscious origin. It is not known from any writer of series plots to have once included intentionally a complex pattern like we found one (table 4). The unconscious is more suited for this task: „Previous studies have led to the claim that our unconscious is in fact sensitive to patterns in stimuli much more complex than what we could ever recognize consciously" [8]. Because this underlying pattern was found in every series we looked for it, the actually origin for this collective unconscious behaviour seems to be a genetically origin. This can explain the equal patterns for different cultures easily like all human lungs function equal to each other. Genes are able to influence human behaviour directly: „Studies over the last 15 years have indicated that genomic imprinting is important for brain function. However, much of the focus has been on the role that imprinted genes play in mediating fetal and early
postnatal growth, and maternal behaviour. Nevertheless, there is now a growing body of evidence to suggest that many imprinted genes are expressed in many different areas of the adult brain. Moreover, these genes also influence a wide range of behaviour and aspects of cognition." [9]. We know that complex behaviour can be produced completely out of genetic factors like the stoats hunting behaviour [10] or human babies that are able to swim by birth. We assume that this pattern can be found for every series with a similar set for the appearing persons, in a way that it fit for every episode.

This results are challenging for the theory of evolution. Genetic information change slowly: „At the conventional sequence divergence rate of $2 \%$ per million years, roughly 1 of 500 base pairs is expected to change after 100,000 years of maternal lineage separation" [11]. The pattern contains a lot native elements like fire, water, colours or numbers. But there are other elements like open doors, keys, science and starships that were unknown until a few thousand years ago and should be not included therefore. This is similar to an other major problem about the theory of evolution, creating a suitable theory for the origin of first life. There is a force missing that drives polymerization. Random associations therefore would take an incredible amount of time without enzymathic help. The question of how simple organic molecules formed a protocell is largely unanswered [12]. If we assume an mechanisms that creates information in a way they are needed later, evolution could explain both results. Until this mechanism is found both problems remain unsolved. Suprisingly non-mainstream theories like Intelligent Design seem to provide a solution by assuming a designer who guided information in a way they are needed later. Combined with the new found pattern with the same problems like the origin of life this goes beyond the „God of the gaps" argument.

### 3.4 Intelligent Design

Until now we assumed the collective unconscious behaviour we found was caused through genetical factors that caused similar approach and avoidance behaviour that changed every time an action related to approaching or avoiding objects were realised. For [1] was found that humans are unconsciously determined to approach food when they are hungry and avoid food when satiated. This resulted in a genetical determined behaviour over time for approaching and avoiding food alternately. We found similar alternating patterns.

As we looked for more information how ST:TNG was produced we found that movies and series are almost never filmed in chronological order [13]. We assumed the equal pattern we found in 123 ST:TNG episodes and two other series was caused through repeating genetical determined behaviour for the script like found in [1]. Through not filming in chronological order genetical determined patterns would be randomly applied and this wouldn't result in recognisable patterns.

The previous section already excluded conscious behaviour as cause for the found pattern. Now genetically created unconscious behaviour is excluded too. This results in the finding that no person related to ST:TNG in this time can be responsible for the found pattern, neither consciously nor unconsciously. There is no possibility that this pattern was created out of chance, we already calculated this probability to $1: 10^{9}(3.2)$. There is no possibility that this pattern was created through a long time of natural selection like for evolution, we already excluded the genetical possibility. As there is no human or natural selection or chance that created this pattern this pattern must be created by something else.

All in all this results greatly refine the theory of Intelligent Design. The origin of first life is largely unanswered because there is no natural selection to explain it. We found a pattern that couldn't be created through natural selection too. That strongly indicates an other yet unknown information-creating process. Moreover this is not a random pattern, it contains specific information. E11 and E13 (table 4) are identical and E12 is triggered by a temporary interruption. So this not by human (3.3), chance (3.2) or natural selection (3.4) created pattern could actually contain information what or who this unknown information-creating process is. This make it possible to draw conclusions about the Intelligent Designer from Intelligent Design. We already found hints like the godlike being "Q" found in Star Trek. It appears related to the colour yellow, the earth or the number 3. This could be a reference for trinity similar to the god of the bible.

All in all this gives Intelligent Design a more promising future then ever before.

## 4 Appendix A

Appendix A lists detailed all appearances and persons that are affected by situations and the movement through the pattern for season 1, 3, 4 and 5 . Appendix C lists the attempt to apply this pattern at a later starting point. The notation looks like this:

1x01 Encounter At Farpoint (1)

```
E3: (OC) 02:32 {*P.Al, *P.Pi, *P.Al, M1, *P.En, *P.Pi, M1, *P.Pi, P.Pi-, *P.Wo}/E9:
03:06 {M11, P.Al+, *P.Ya, *P.Tr}/E11:03:09 {*P.Da}/E12:03:10 {*P.Al}/E13: 03:13
{*P.Ri}/E14: 03:15 {*P.Pi, M1}/E15: 03:16 {P.Ri+, *P.Tr, *P.Ya}
```

The caption contains the episode number and the title. The text contains the event numbers, the time the events occur and all appearances. The first three episodes contain more detailed descriptions. For season 3, 4 and 5 there are only appearances and affected persons noted that triggers the next event. Starships at the beginning are also skipped then. „(OC)" tells the opening credits are included.

1x01 Encounter At Farpoint (1)

```
E3: (OC) 02:32 {*P.Al, *P.Pi, *P.Al, M1, *P.En, *P.Pi, M1, *P.Pi, P.Pi-, *P.Wo}/E9:
03:06 {M11, P.Al+, *P.Ya, *P.Tr}/E11:03:09 {*P.Da}/E12:03:10 {*P.Al }\mp@subsup{}{}{11}}/\underline{E}13:03:13
{*P.Ri}/E14: 03:15 {*P.Pi, M1}/E15: 03:16 {P.Ri+, *P.Tr, *P.Ya}
```

1x02 Encounter At Farpoint (2)
Continuation of 1x01
1x03 The Naked Now
E4: 00:04 \{*P.Al\}/E5: 00:06 \{*P.Pi\}/E6: 00:13 \{ *P.Al ${ }^{12}$, M6\}/E7: 00:23 \{*P.Da\}/E8: 00:27 \{P.Al- ${ }^{13}$, *P.Tr,*P.LF\}/E9: 00:28 \{ ${ }^{*}$ P.Ya, ${ }^{*}$ P.Pi, ${ }^{*}$ P.A1 $\left.{ }^{14}\right\} /$ E11: 00:34 $\left\{{ }^{*}\right.$ P.Da $\left.{ }^{15}\right\} /$ E12: $\underline{00: 34}\left\{{ }^{*}\right.$ P.Al $\left.{ }^{12}\right\} /$ E13: 00:38 $\left\{{ }^{*}\right.$ P.WSA $^{16}, *{ }^{*}$. Ri $\left.^{17}\right\} /$ E14: 00:47 $\left\{{ }^{*} \mathrm{P} . \operatorname{Tr}\right\} /$ E15: 00:48 $\{\mathrm{P} . \operatorname{Tr}-\}$

1x04 Code Of Honor
E3: 00:06 \{ *P.Al, *P.Pi, *P.A1 $\left.{ }^{18}\right\} /$ E9: 00:29 \{ ${ }^{*}$ P.LF $^{19}$, *P.Ri, *P.Ya, *P.Pi\}/E11: 00:34 $\{*$ P.Wo $\} /$ E12: 00:36 $\left\{{ }^{*}\right.$ P.Pi, $\left.{ }^{* P . A 1}{ }^{18}\right\} /$ E13: 00:39 $\left\{{ }^{*}\right.$ P.Da ${ }^{20}$, P.Da $+^{20}$, M1 \}/E14: 00:45 \{*P.Pi, *P.Ri, *P.Tr ${ }^{21}$, P.Pi+\}/E15: 00:50 \{P.Ri+\}

[^5]```
E4: 00:02 {*P.Al}/E5: 00:03 {*P.Pi, *P.Wo}/E6: 00:15 {M6, *P.Al, M6}/E7: 00:21
{*P.Pi, *P.Wo, *P.Ri, P.Pi+}/E8: 00:24 {M6}/E9: 00:26 {*P.Ya, *P.Pi, *P.Al, *P.Ri,
*P.Pi}/E11: 00:43 {*P.Wo}/E12: 00:46 {*P.Pi}/E13: 00:49 {*P.Da, *P.LF}/E14: 00:52
{*P.Pi, *P.Da, *P.Al, *P.Ri, *P.LF, *P.Wo, *P.Ya, M6}/E15: 01:06 {*P.En}
```

1x06 Where No One Has Gone Before

E4: 00:01 \{*P.Al\}/E5: 00:03 \{ *P.Pi\}/E6: 00:09 \{*P.Al, M6\}/E7: 00:19 \{*P.LF, *P.Pi\}/E8: 00:23 \{P.Ri-, *P.Ri\}/E9: 00:26 \{P.Ko-, *P.Ri\}/E11: 00:35 \{*P.Ko, P.Ko-\}/E12: 00:39 \{ ${ }^{*}$ P.Pi\}/E13: 00:40 \{*P.Ri, *P.Da\}/E14: 00:41 \{ ${ }^{*}$ P.Al, *P.Da, *P.Ko\}/E15: 00:47 \{P.Ko-, *P.Pi, *P.Al, P.Al+\}

1 x07 Lonely Among Us
E4: 00:01 \{ ${ }^{*}$ P.Al\}/E5: 00:02 $\{*$ P.Pi\}/E6: 00:03 \{ *P.Al, M6\}/E7: 00:14 \{*P.Ya, *P.Ri, *P.Pi, *P.Wo, *P.Al, *P.BW, *P.Ya, *P.Ri, *P.Pi, *P.Al, *P.Ya, *P.Pi, *P.Ri, *P.Al\}/E8: 00:51 \{P.Al-, *P.Wo, P.Wo+\}/E9: 00:54 \{*P.Ya, *P.Ri, *P.Ya\}/E10: 00:56 \{*P.Wo, P.Wo+\}/E12: 00:58 \{*P.BW, *P.Al\}/E13: 01:00 \{*P.Wo, M6\}/E14: 01:02 \{*P.Pi, *P.Ya, *P.Ri, *P.Pi, *P.Al, P.Al-, *P.Ya, *P.Pi, *P.Ri\}/E15: 01:10 \{P.Al+\}

1x08 Justice
E3: 00:03 \{ *P.A1, *P.Pi, *P.Ya, *P.Pi, *P.En, *P.Ri, *P.Al, *P.Ri\}/E9: 00:29 \{ *P.BeC, M1, *P.Tr \}/E11: 00:31 \{P.Ri+\}/E12: 00:32 \{*P.BeC, *P.Pi\}/E13: 00:34 \{P.Tr-\}/E14: 00:35 \{ *P.Tr, *P.BeC, *P.Pi, *P.Tr, *P.Al, *P.BeC, P.Al-, *P.WeC, *P.Al, P.BeC-, *P.Ri, *P.Da\}/E15: 00:55 \{P.Ri+\}
$1 \times 09$ The Battle

E3: 00:04 \{ *P.Wo, *P.Pi, *P.Al, M5, *P.Wo, *P.Pi, *P.Wo, *P.Ya, *P.Al, M1 \}/E9: 00:28 $\left\{{ }^{* P . B e C, ~ * P . P i\} / E 11: ~ 00: 47 ~\{P . P i-\} / E 12: ~ 00: 56 ~\{~ * P . B e C, ~ * P . P i\} / E 13: ~ 00: 57 ~}\right.$ \{P.Pi-\}/E14: 01:00 \{*P.BeC, M6, *P.Pi, *P.Wo, *P.Al, *P.BeC, *P.Pi, M6\}/E15: 01:29 \{P.Pi-, *P.BeC $\}$

1x10 Hide And Q
E1: 00:02 \{ *P.Al, *P.Pi, *P.Tr, *P.BW, P.Tr+\}/E2: 00:13 \{*P.Ya\}/E3: 00:19 \{ *P.A1, M1 \}/E9: 00:21 \{*P.BeC, M4\}/E12: 00:27 \{*P.BW, *P.Pi, *P.BeC, *P.Ya, *P.Pi, *P.Al, *P.BeC \}/E13: 00:40 \{*P.LF\}/E14: 00:41 \{*P.Pi, *P.LF, *P.Da, M13,*P.Ya, *P.Pi, M1, *P.Ri\}/E15: 00:52 \{M14\}

1x11 Haven
E4: 00:02 \{*P.Al\}/E5: 00:03 \{*P.Pi, *P.En, *P.Da\}/E6: 00:20 \{*P.Al\}/E7: 00:21 \{*P.Pi, *P.A1\}/E8: 00:23 \{P.Pi-\}/E9: 00:25 \{*P.Ya, *P.Pi, *P.En\}/E11: 00:29 \{*P.Da, P.En-, *P.LF $\} /$ E12: 00:32 $\{*$ P.En $\} /$ E13: 00:35 $\{*$ P.Da, P.En $\} /$ E14: 00:38 \{ ${ }^{*}$ P.Pi, *P.Da $\} /$ E15: 00:51 \{*P.En, P.Ri+\}

```
E4: 00:01 \{ *P.Al\}/E5: 00:03 \{*P.Ri, *P.LF, *P.Da\}/E6: 00:10 \{M6, *P.Wo\}/E7: 00:11
\{*P.Ri, *P.Al, *P.Pi\}/E8: 00:26 \{P.Ri-, *P.Pi, *P.Tr, P.Tr+, *P.Pi, *P.Tr, *P.Pi\}/E9: 00:45
\(\{\) *P.Ya, *P.Tr, *P.Pi\}/E11: 00:49 \{P.Pi-\}/E12: 00:50 \{ *P.Tr, *P.Pi\}/E13: 00:53
\{P.Pi-\}/E14: 00:57 \{*P.Tr, *P.Wo, *P.Pi\}/E15: 01:00 \{P.Pi-\}
1x13 Datalore
```

E3: 00:03 \{ *P.Al, *P.Pi, *P.Da, *P.Ya, *P.Ri, *P.Al, M1 \}/E9: 00:25 \{ *P.LF, *P.WeC,
*P.Ri, *P.Pi, *P.Ya, *P.Ri\}/E11: 00:33 \{*P.Da\}/E12: 00:34 \{P.Da-, *P.Pi\}/E13: 00:39
\{P.Da+, *P.Da, M1, *P.WeC\}/E14: 00:50 \{P.Da-, *P.WeC, *P.Da, *P.WeC, *P.BW,
*P.Da, *P.BW, *P.WeC, *P.BeC, *P.Da, *P.WeC, *P.Da \}/E15: 01:19 \{P.Da+\}

1x14 Angel One
E1: 00:05 \{*P.Al, *P.Pi, *P.Al, P.Al-\}/E2: 00:18 \{*P.Ya, *P.Pi\}/E3: 00:20 \{*P.Al\}/E9: 00:22 \{*P.LF, *P.Pi, *P.LF\}/E11: 00:27 \{*P.Da\}/E12: 00:31 \{*P.Al, M10\}/E13: 00:38 \{*P.LF\}/E14: 00:39 \{ *P.Tr, *P.Ya, *P.Ri, *P.Wo, *P.Al\}/E15: 00:48 \{M14\}

1x15 11001001
E3: 00:03 \{ *P.Al, *P.Pi, *P.Al, *P.Ya, *P.Al, M1 \}/E9: 00:32 \{Al+, M11, *P.Pi, *P.Al, M1, *P.Al, *P.LF, *P.Ri\}/E11: 00:52 \{ *P.Da\}/E12: 00:56 \{ *P.Pi, *P.Al\}/E13: 01:01 $\{$ *P.LF, *P.Ri, *P.Da, *P.LF, *P.Ri\}/E14: 01:14 \{*P.Pi, *P.Ri\}/E15: 01:17 \{P.Ri+, P.Al+

1x16 Too Short A Season

E3: 00:01 \{ *P.Al, *P.Pi, *P.Al, *P.Pi, *P.Al, *P.Pi, *P.Da\}/E9: 00:26 \{ *P.WeC, *P.Al\}/E11: 00:33 \{M6, P.WeC-\}/E12: 00:38 \{*P.Pi\}/E13: 00:41 \{P.WeC-, *P.Da, *P.WeC \}/E14: 00:59 \{*P.Al, *P.BW, *P.Al, *P.Pi, *P.Al, M13, *P.Al, *P.Pi, *P.WeC, P.WeC+\}/E15: 01:27 \{P.WeC-\}

1x17 When The Bough Breaks
E3: 00:01 \{M1, *P.Ri, *P.Pi, *P.Da\}/E9: 00:11 \{P.Da-, *P.Ri\}/E11: 00:16 \{ *P.Da, *P.Ri\}/E12: 00:20 \{ *P.Al\}/E13: 00:20 \{ *P.Da, *P.Ri, *P.Da\}/E14: 00:30 \{P.Da-, *P.Al, *P.Da, M1, *P.LF, *P.Da, M1, *P.Ri, *P.Ya, *P.BeC, P.Ri-, *P.Tr, *P.Pi, *P.Wo\}/E15: 00:56 \{P.Da+, M14\}

1x18 Home Soil
E3: 00:02 \{ *P.Al, *P.Pi, M6, *P.Ya\}/E9: 00:16 \{*P.LF, *P.Al, *P.Pi\}/E11: 00:21 $\left\{{ }^{*}\right.$ P.Da $\} / \mathrm{E} 12: 00: 22\left\{{ }^{*} \mathrm{P} . \operatorname{Tr}\right\} / \mathrm{E} 13: 00: 25\left\{{ }^{*} \mathrm{P} . \mathrm{Ri}\right\} / \mathrm{E} 14: 00: 27\left\{{ }^{*} \mathrm{P} . \mathrm{Pi}, *\right.$ P.Ya, *P.Wo, *P.Tr, *P.Ri, *P.Da, *P.Pi, *P.Ya, *P.Tr, *P.Ri\}/E15: 00:41 \{M12\}

```
E3: 00:02 {*P.Al, *P.Da, *P.Al}/E9: 00:10 {*P.WeC}/E11:00:11 {*P.Da}/E12: 00:14
{*P.Al}/E13: 00:15 {*P.Da, *P.WeC}/E14: 00:28 {P.Da-, *P.BeC, *P.WeC, *P.Da,
*P.WeC, *P.Da, P.Da-, *P.BeC, *P.WeC, *P.Da, *P.WeC, *P.Pi, *P.BeC, *P.Ya, *P.Ri,
*P.WeC, *P.Wo}/E15: 01:23 {M14}
1x20 Heart Of Glory
E4: 00:03 \{*P.A1, *P.Wo\}/E5: 00:08 \{*P.Pi, *P.BW, *P.Pi, *P.Wo, M2 \}/E6: 00:19 \{*P.Al\}/E7: 00:20 \{*P.Ri, *P.Pi, *P.Ya, *P.Pi, *P.LF, *P.Da, *P.LF, *P.Da\}/E8: 00:27 \{P.Al-, *P.Pi, *P.Ri, *P.Wo, *P.Pi\}/E9: 00:31 \{P.Wo-, *P.Ri, *P.Pi\}/E11: 00:33 \{M6\}/E12: 00:35 \{*P.Al\}/E13: 00:36 \{*P.LF\}/E14: 00:37 \{ *P.Pi, *P.LF, *P.A1, *P.LF, *P.BW, *P.Ya, M6, M2, *P.Ri, *P.Pi, *P.Da\}/E15: 01:00 \{P.Wo-, *P.BW, *P.Pi, *P.Ri, P.BW-\}
```

1x21 The Arsenal Of Freedom
E1: 00:02 \{ *P.Al, *P.Pi, *P.A1, P.Al-, M6, M1, *P.Pi\}/E2: 00:29 \{ *P.Ri\}/E3: 00:31 \{*P.Tr, *P.Al, *P.Pi, *P.Da, *P.Al\}/E9: 00:40 \{M2, *P.LF\}/E11: 00:46 \{*P.Da\}/E12: 00:47 \{P.Al-, *P.Pi\}/E13: 00:49 \{ *P.LF\}/E14: 00:50 \{*P.Al, *P.Pi, *P.LF, *P.Ri, *P.Al\}/E15: 00:58 \{M14\}

1x22 Symbiosis
E4: 00:01 $\left\{{ }^{*}\right.$ P.Al $\} /$ E5: 00:08 $\{*$ P.Pi $\} /$ E6: 00:08 $\{*$ P.Al $\} / E 7: 00: 09\{*$ P.Pi, $*$ P.En $\} /$ E8: 00:16 \{M1, *P.Tr, *P.Pi\}/E9: 00:25 \{*P.BeC, *P.WeC, *P.Pi\}/E12: 00:36 \{M12, *P.Ya\}/E13: 00:39 \{*P.Wo\}/E14: 00:41 \{*P.Ya, *P.Al\}/E15: 00:48 \{*P.En\}

1x23 Skin Of Evil
E3: 00:03 \{ *P.Al, *P.Pi, *P.Tr, M1, *P.Da, *P.Pi, *P.Ya, *P.Wo, M6, *P.Ya, *P.Wo, *P.Ya\}/E9: 00:37 \{P.Wo-\}/E11: 00:40 \{*P.Wo\}/E12: 00:45 \{*P.Ya, *P.A1\}/E13: 00:48 \{*P.Wo\}/E14: 00:50 \{P.Al-, *P.Ya, P.Ya-, *P.Wo\}/E15: 00:55 \{P.Ya+\}

1x24 We'll Always Have Paris
E4: 00:01 \{*P.Al\}/E5: 00:03 \{*P.Pi\}/E6: 00:10 \{*P.Al\}/E7: 00:13 \{*P.BW, P.Pi+\}/E8: 00:23 \{P.Pi-\}/E9: 00:25 \{*P.Ya, *P.Pi\}/E12: 00:29 \{*P.BW, *P.Ya\}/E13: 00:30
\{P.Pi-\}/E14: 00:30 \{*P.Pi\}/E15: 00:32 \{P.Ya+\}
1x25 Conspiracy
E3: 00:03 \{*P.Al, *P.Ri, M5, *P.Al, *P.Wo, *P.Tr, *P.Ri, M1 \}/E9: 00:18 \{ *P.LF\}/E11 00:19 \{ ${ }^{*}$ P.Da, *P.Wo, P.Wo- \}/E12: 00:21 \{*P.En\}/E13: 00:26 \{P.Wo-\}/E14: 00:28 \{M3, *P.Da, *P.LF, *P.Da, *P.LF, *P.Da, P.Da-, *P.Tr, *P.Ri, *P.LF, *P.Da, *P.LF, *P.Tr, *P.Ri\}/E15: 01:12 \{M14\}

```
E3: 00:01 {*P.Al, *P.Ri, *P.Al, *P.Pi, *P.Ri, *P.Al, M6, *P.Da, *P.Ya}/E9: 00:18
{*P.LF}/E11: 00:20 {*P.Da, *P.Ri, *P.Wo}/E12: 00:24 {P.Al-}/E13: 00:26 {*P.Wo,
*P.Ri}/E14: 00:30 {P.Al-, *P.Pi, *P.Wo, *P.Ri, *P.Pi, *P.Da, *P.Wo, M13, *P.Da, *P.Ri,
*P.Da, *P.Ri, M13, *P.Ri, *P.Pi, *P.Wo, *P.Da}/E15: 01:01 {P.Da+}
3x01 Evolution
```

E1: 00:12 \{ *P.Al\}/E2: 00:31 \{ *P.Ri\}/E3: 00:37 \{ *P.Wo\}/E9: 00:39 \{*P.WeC \}/E11:
00:42 \{P.WeC- \}/E12: 00:54 \{*P.Pi\}/E13: 00:59 \{*P.Wo, *P.WeC\}/E14: 01:05
\{P.WeC+\}/E15: 01:16 \{M14\}

3x02 The Ensigns Of Command
E3: 00:07 \{M1 \}/E9: 00:20 \{*P.BeC $\} /$ E11: 00:27 $\{*$ P.Da $\} /$ E12: 00:32 \{P.Da- $\} / \underline{\text { E13: }}$ 00:36 \{ ${ }^{*}$ P.Da\}/E14: 00:36 $\left\{{ }^{*}\right.$ P.Pi\}/E15: 00:52 \{P.Da+\}

3x03 The Survivors

E3: 00:03 \{*P.Pi\}/E4: 00:12 \{P.Al-\}/E5: 00:15 \{*P.Pi\}/E6: 00:19 \{*P.Al\}/E7: 00:27 \{*P.Ri\}/E8: 00:31 \{M6\}/E9: 00:40 \{*P.WeC\}/E11: 00:44 \{*P.Da\}/E12: 00:44 \{*P.Pi\}/E13: 00:45 \{*P.Da, *P.WeC\}/E14: 00:47 \{P.Al-, *P.Pi\}/E15: 01:00 \{P.Tr-\}

3x04 Who Watches The Watchers
E3: 00:04 \{*P.Pi\}/E9: 00:20 \{*P.LF\}/E12: 00:25 \{P.LF-\}/E13: 00:30 \{*P.Ri\}/E14: 00:32 \{M2\}/E15: 00:37 \{P.LF+\}

3x05 The Bonding
E5: 00:11 \{*P.Ri\}/E6: 00:14 \{*P.Al\}/E7: 00:16 \{*P.Pi\}/E8: 00:37 \{P.Al-\}/E9: 00:53 $\{$ P.Tr- $\} /$ E11: 00:55 $\left\{{ }^{*}\right.$ P.Wo, P.Wo- $\} /$ E12: 00:57 \{*P.Tr\}/E13: 00:59 \{ ${ }^{*}$ P.Ri\}/E14: 01:00 $\{*$ P.Pi $\} /$ E15: (OC) 03:23 \{P.Pi- $\}$

3x06 Booby Trap
E1: 00:02 \{*P.Al, *P.LF, M5, M7\}/E2: 00:24 \{-M7\}/E3: 00:30 \{*P.WSA\}/E9: 00:33 $\{*$ P.LF $\} / E 11: 00: 39\{*$ P.WSA $\} / E 12: 00: 41$ \{M10, *P.Ya $\} /$ E13: 00:46 $\{*$ P.WSA $\} /$ E14: 00:50 \{*P.Ya\}/E15: 01:14 \{*P.En, P.LF+\}

3x07 The Enemy
E4: 00:01 \{*P.Al\}/E5: 00:14 \{*P.LF\}/E6: 00:33 \{*P.Al\}/E7: 00:34 \{*P.Ri\}/E8: 00:34 \{M6\}/E9: 00:40 \{P.Da-\}/E11: 00:46 \{M6\}/E12: 01:10 \{*P.BW\}/E13: 01:12 $\{*$ P.Ri $\} /$ E14: 01:16 $\{*$ P.BW $\} /$ E15: 01:28 \{P.BW- $\}$

E1: 00:02 \{*P.Al, P.Tr+\}/E2: 00:17 \{*P.Ya\}/E3: 00:18 \{*P.Da\}/E9: 00:21 \{P.Tr-\}/E11: 00:24 \{*P.Da\}/E12: 00:34 \{*P.BW\}/E13: 00:56 \{P.Tr-\}/E14: 01:07 \{ ${ }^{*}$ P.Pi\}/E15: 01:11 \{P.Tr- \}

3x09 The Vengeance Factor
E4: 00:01 \{*P.Al\}/E5: 00:23 \{*P.Da\}/E6: 00:26 \{M6\}/E7: 00:30 \{*P.Ri\}/E8: 00:31 \{P.Al-\}/E9: 00:35 \{*P.BeC\}/E11: 00:42 \{*P.Wo\}/E12: 00:43 \{P.Al-\}/E13: 00:46 \{*P.Da\}/E14: 00:51 \{P.Al-, *P.Al\}/E15: 01:18 \{P.Wo-\}

3x10 The Defector
E4: 00:01 \{M10\}/E5: 00:27 \{ *P.Da\}/E6: 00:43 \{*P.Al\}/E7: 00:49 \{*P.Da\}/E8: 01:24 $\{\mathrm{P} . \mathrm{BW}+\} / \mathrm{E}: 01: 30\{\mathrm{P} . \mathrm{Da}-\} / \mathrm{E} 11: 01: 32\{$ P.Da+ $\} /$ E12: 01:40 \{*P.Al\}/E13: 01:43 $\{*$ P.Da $\} /$ E14: 01:58 $\{*$ P.Al $\} / E 15: 02: 08$ \{P.Da+ $\}$

3x11 The Hunted

E3: 00:03 \{*P.Pi\}/E9: 00:22 \{M11\}/E11:00:31 \{P.WeC-\}/E12: 00:38 \{ *P.Pi\}/E13: 00:39 \{P.Pi-\}/E14: 00:41 \{P.WeC+, M13\}/E15: 00:53 \{M12, P.WeC-\}
$3 \times 12$ The High Ground
E5: 00:02 \{*P.Pi\}/E6: 00:08 \{*P.Al\}/E7: 00:14 \{*P.Da\}/E8: 00:22 \{P.Wo+, P.Al-\}/E9: 00:31 \{*P.BeC\}/E11: 00:31 \{*P.Wo\}/E12: 00:37 \{*P.BeC\}/E13: 00:43 \{*P.Da\}/E14: 00:43 \{*P.BeC \}/E15: 00:45 \{M14\}

3x13 Deja Q
E4: 00:01 \{*P.Al\}/E5: 00:04 \{*P.Pi\}/E6: 00:08 \{*P.Al\}/E7: 00:13 \{*P.Pi\}/E8: 00:14 \{P.Al-\}/E9: 00:27 \{*P.Al\}/E12: 00:29 \{P.Al-\}/E13: 00:34 \{*P.Da\}/E14: 00:35 $\{*$ P.Pi $\} / \mathrm{E} 15: 00: 40\{\mathrm{P} . \mathrm{Al}+\}$

3x14 A Matter Of Perspective
E1: 00:10 \{*P.Pi\}/E2: 01:02 \{*P.Ya\}/E3: 01:06 \{*P.Da, P.Pi-\}/E9: 02:03 \{P.Da-\}/E11: 02:07 \{*P.Da\}/E12: 02:09 \{P.Da-\}/E13: 02:33 \{*P.LF $\} /$ E14: 02:34 $\left\{{ }^{*} \mathrm{P} . \mathrm{Pi}\right\} /$ /E15: 02:35 \{*P.En\}

3x15 Yesterday's Enterprise
E3: 00:01 \{*P.Wo\}/E9: 00:05 \{M7\}/E11: 00:13 \{*P.Wo\}/E12: 00:13 \{M2\}/E13: 00:14 $\{*$ P.Gu\}/E14: 00:23 \{*P.Ya, P.Wo+\}/E15: 00:36 \{P.Wo-\}

3x16 The Offspring
E3: 00:03 \{*P.Pi\}/E9: 00:13 \{*P.LF\}/E11: 00:17 $\left\{{ }^{*} \mathrm{P} . \mathrm{Da}\right\} / \mathrm{E} 12: 00: 18\left\{{ }^{*} \mathrm{P} . \operatorname{Tr}\right\} / \mathrm{E} 13:$ 00:19 \{ *P.Da, P.WeC-\}/E14: 00:28 \{*P.Tr\}/E15: 00:34 \{P.WeC-\}

```
E3: 00:01 {*P.Pi}/E9: 00:21 {P.Wo-}/E10: 00:23 {P.Wo+}/E11:00:27 {P.Ri+}/E12:
00:32 {*P.Al}/E13: 00:35 {*P.Ri}/E14: 00:40 {*P.Pi}/E15: 00:47 {*P.En}
```

3x18 Allegianc
E5: 00:03 \{ ${ }^{*}$ P.Pi\}/E6: 00:19 \{*P.Al\}/E7: 00:22 \{*P.BW\}/E8: 00:40 \{M6, P1.5-\}/E9: 00:50 \{*P.En\}/E11: 00:59 \{*P.Wo\}/E12: 01:03 \{*P.Pi\}/E13: 01:29 \{*P.Da\}/E14: 01:31 \{*P.Pi\}/E15: 01:43 \{M12, P1.5-\}

3x19 Captain's Holiday
E3: 00:02 \{*P.Al\}/E9: 00:22 \{*P.WeC\}/E11: 00:48 \{M6\}/E12: 00:51 \{*P.Pi\}/E13: 01:04 \{P.WeC-\}/E14: 01:09 \{*P.Pi\}/E15: 01:37 \{P.Tr-\}
$3 \times 20$ Tin Man
E5: 00:03 \{ $\left.{ }^{*} \mathrm{P} . \mathrm{Pi}\right\} / \mathrm{E} 6: 00: 10\{\mathrm{M} 6\} / \mathrm{E7}: 00: 18$ \{ $\left.{ }^{*} \mathrm{P} . \mathrm{Da}\right\} / \mathrm{E} 8: 00: 19$ \{M6\}/E9: 00:20 \{*P.Al\}/E11: 00:25 \{P.Pi-\}/E12: 00:29 \{P.Al-\}/E13: 00:30 \{*P.Wo\}/E14: 00:33 \{*P.Pi\}/E15: 00:37 \{P.Ri+\}

3x21 Hollow Pursuits
E1: 00:03 \{P.Tr+\}/E2: 00:09 \{*P.Gu\}/E3: 00:10 \{M1 \}/E9: 00:15 \{ *P.Gu\}/E11: 00:18 $\left\{{ }^{*}\right.$ P.Ko\}/E12: 00:37 \{P.LF-\}/E13: 00:39 \{*P.Ri\}/E14: 00:41 \{*P.Al\}/E15: 01:47 \{M14, P.Tr- $\}$

3x22 The Most Toys
E3: 00:02 \{*P.Pi\}/E9: 01:08 \{P.Da-\}/E11: 01:10 \{*P.WSA\}/E12: 01:13 \{P.Da-\}/E13: 01:17 \{M6\}/E14: 01:32 \{*P.Al\}/E15: 01:58 \{P.WeC-\}

3x23 Sarek
E5: 00:03 \{ $\left.{ }^{*} \mathrm{P} . \mathrm{Pi}\right\} / \mathrm{E6}: 00: 26\{*$ P.Al $\} / E 7: 00: 32\{*$ P.Pi $\} / E 8: 00: 41$ \{P.Pi- $\} / E 9: 00: 46$ \{M11\}/E11: 00:48 \{P.WeC-\}/E12: 00:50 \{*P.Pi, M12\}/E13: 00:51 \{P.WeC-\}/E14: 00:52 \{P.WeC+\}/E15: 01:18 \{P.WeC-\}
$3 \times 24$ Ménage à Troi
E3: 00:03 \{ ${ }^{*}$ P.Pi\}/E9: 00:09 \{M7\}/E11: 00:13 \{*P.Wo\}/E12: 00:18 \{ ${ }^{*}$ P.Al\}/E13: 00:23 \{M7\}/E14: 00:27 \{*P.Al\}/E15: 00:39 \{P.Ri+\}
$3 \times 25$ Transfigurations
E5: 00:03 \{ ${ }^{*}$ P.Pi\}/E6: 00:06 \{M6\}/E7: 00:13 \{P.Pi+, P.Wo-\}/E8: 00:30 \{P.Wo+, P.LF-\}/E9: 00:53 \{*P.A1\}/E10: 01:01 \{*P.WSA, P.LF+\}/E11:01:18 \{P.Wo-\}/E12: 01:29 \{P.LF-\}/E13: 01:31 \{*P.Wo\}/E14: 01:36 \{*P.Ya\}/E15: 01:51 \{*P.BW, P.BW-\}

```
E3: 00:02 {*P.Pi}/E4: 00:10 {P.Al-}/E5: 00:13 {*P.Ya}/E6: 00:14 {M1 }/E7: 00:15
{*P.Da}/E8: 00:18 {P.Al-}/E9: 00:24 {*P.Ya}/E11: 00:29 {*P.Da}/E12: 00:32
{*P.Ya}/E13: 00:35 {*P.Ri}/E14: 00:48 {*P.Ya}/E15: (OC) 03:25 {P.WeC-}
4x01 The Best Of Both Worlds (2)
Continuation of 3x26
4x02 Family
E5: 00:04 {*P.Pi}/E6: 00:16 {*P.Al}/E7: 00:17 {*P.Ri}/E8: 00:23 {M1, P.Wo+}/E9:
00:41 {*P.Al}/E11: 00:47 {*P.Wo, P.Wo-}/E12: 01:02 {*P.BW}/E13: 01:06
{*P.Ri}/E14: 01:15 {*P.Ya}/E15: 01:36 {P.Wo-}
4x03 Brothers
```

E1: 00:02 \{*P.Pi\}/E2: 00:29 \{*P.Ri\}/E3: 00:32 \{*P.Da\}/E9: 00:43 \{P.Da-\}/E11: 00:49
\{*P.Da\}/E12: 00:56 \{*P.Al\}/E13: 00:57 \{*P.Da\}/E14: 00:58 \{*P.A1, M2, P.Da-,
M3\}/E15: 01:49 \{P.Da+\}

4x04 Suddenly Human
E5: 00:02 \{*P.Pi, P.Wo-\}/E6: 00:15 \{M6\}/E7: 00:21 \{*P.Pi\}/E8: 00:49 \{P.Wo+, P.BW+\}/E9: 01:03 \{P.Wo-\}/E11: 01:05 \{*P.Wo\}/E12: 01:06 \{*P.Al\}/E13: 01:07 \{*P.WeC\}/E14: 01:07 \{M13\}/E15: 01:09 \{M14\}
$4 x 05$ Remember Me

E3: 00:01 \{M1 \}/E9: 00:02 \{*P.BeC\}/E12: 00:30 \{*P.BW\}/E13: 00:39 \{M1 \}/E14: 00:39 \{*P.Ya, P.BeC-\}/E15: 00:53 \{P.WeC-\}

4x06 Legacy
E3: 00:05 \{*P.Ri\}/E9: 00:14 \{P.Wo- \}/E11: 00:19 \{ *P.Da\}/E12: 00:21 \{*P.Ya\}/E13: 00:23 \{*P.Ri, P.Da+\}/E14: 00:28 \{*P.Tr\}/E15: 00:48 \{P.Da+\}

4x07 Reunion

E5: 00:04 \{*P.Pi\}/E6: 00:14 \{M6\}/E7: 00:16 \{*P.Pi, P.Pi+\}/E8: 01:14 \{M6\}/E9: 01:26 \{*P.Ya\}/E11: 01:31 \{*P.Wo\}/E12: 01:37 \{*P.Pi\}/E13: 01:41 \{*P.Wo\}/E14: 01:52 \{*P.Al\}/E15: 02:02 \{*P.En\}
$4 x 08$ Future Imperfect
E3: 00:04 \{ ${ }^{*}$ P.Pi $\} / E 9: 00: 18\{*$ P.BeC $\} / E 11: 00: 36\{$ P.Ri +$\} /$ E12: 00:40 $\{*$ P.Tr $\} /$ E13: 00:43 \{ ${ }^{*}$ P.Ri\}/E14: 00:44 \{M3, *P.Pi\}/E15: 00:50 \{M14, P.Ri+\}

E3: 00:03 \{*P.Pi\}/E9: 00:17 \{*P.WeC\}/E11: 00:19 \{*P.Wo\}/E12: 00:27 \{*P.Pi\}/E13: 00:30 $\{$ PP.WeC $\} /$ E14: 00:39 \{*P.Pi\}/E15: 01:07 \{M14\}
$4 \times 10$ The Loss

E1: 00:07 \{*P.BW, *P.A1, P.Al-\}/E2: 00:40 \{P.BW-\}/E3: 00:46 \{ *P.BW\}/E9: 01:13 $\{$ P.BW- \}/E12: 01:19 \{P.Al-\}/E13: 01:22 \{P.BW-\}/E14: 01:28 \{*P.Al\}/E15: 01:37 \{P.BW-\}

4x11 Data's Day
E3: 00:02 \{*P.Da\}/E9: 00:10 \{*P.WeC\}/E11: 00:14 \{*P.Da\}/E12: 00:19 \{ ${ }^{*}$ P.Al\}/E13: 00:33 \{M1 \}/E14: 00:37 \{*P.Al\}/E15: 00:38 \{M14, P.Da+\}
$4 \times 12$ The Wounded

E5: 00:02 \{*P.Pi\}/E6: 00:07 \{M6\}/E7: 00:14 \{*P.Da\}/E8: 00:35 \{P.Pi-\}/E9: 00:53 \{M2\}/E12: 00:54 \{P.Al-\}/E13: 00:57 \{*P.Wo\}/E14: 01:02 \{*P.Tr, P.Wo+\}/E15: 01:16 \{P.Pi-, M14\}

4x13 Devil's Due
E5: 00:07 \{P.BW-\}/E6: 00:18 \{*P.Al\}/E7: 00:20 \{*P.BW \}/E8: 00:49 \{P.BW+\}/E9: 00:51 \{P.Da-\}/E12: 00:54 \{*P.BW\}/E13: 00:56 \{P.BW-\}/E14: 00:57 \{*P.Pi\}/E15: 00:58 \{P.Da+\}
$4 \times 14$ Clues

E3: 00:07 \{*P.Ri\}/E9: 00:12 \{*P.LF, P.Al+\}/E12: 00:24 \{P.Al-\}/E13: 00:37
$\left\{\right.$ *P.Gu\}/E14: 00:39 \{ $\left.{ }^{*} \mathrm{P} . \mathrm{Al}\right\} / \mathrm{E} 15: 00: 41$ \{M14\}
4 x 15 First Contact
E5: 00:04 \{*P.Ri\}/E6: 00:10 \{M1 \}/E7: 00:18 \{*P.Ri\}/E8: 00:24 \{M6\}/E9: 00:34 $\{*$ P.Ya $\} / E 11: 00: 36\{$ M6\}/E12: 00:38 \{*P.Ya $\} /$ E13: 00:40 $\left\{{ }^{*}\right.$ P.Wo\}/E14: 00:42 \{*P.Ya\}/E15: 01:00 \{P.Ri+\}

4x16 Galaxy's Child
E5: 00:04 \{*P.Pi\}/E6: 00:11 \{*P.Al\}/E7: 00:16 \{*P.Pi\}/E8: 00:21 \{M1 \}/E9: 00:28 \{M11\}/E10: 00:45 \{P.LF+\}/E11: 00:56 \{*P.LF $\left.{ }^{22}\right\} /$ E12: 01:02 $\{*$ P.Pi $\} /$ E13: 01:04 \{*P.LF\}/E14: 01:06 \{*P.Pi\}/E15: 01:08 \{P.LF+\}

22 ( $4 \times 16$ E11) Compare to $4 \times 24$ E11, P.LF not longer positively affected

E3: 00:02 \{*P.Pi\}/E4: 00:15 \{P.Al-\}/E5: 00:21 \{*P.Pi\}/E6: 00:24 \{*P.Al\}/E7: 00:25
\{*P.Ri\}/E8: 00:32 \{P.Al-\}/E9: 00:43 \{P.Tr-\}/E11: 00:57 \{*P.Wo\}/E12: 01:00 \{*P.Tr\}/E13: 01:01 \{*P.Ri\}/E14: 01:03 \{*P.Tr\}/E15: 01:29 \{P.Al+\}
$4 \times 18$ Identity Crisis
E4: 00:01 \{M10\}/E5: 00:06 \{*P.Ya\}/E6: 00:10 \{M6\}/E7: 00:14 \{*P.LF\}/E8: 01:00 \{P.Wo+\}/E9: 01:15 \{*P.Ya\}/E12: 01:20 \{*P.BW\}/E13: 01:22 \{P.BW-\}/E14: 01:23 \{*P.Pi\}/E15: 01:29 \{P.Al+\}
$4 x 19$ The Nth Degree
E1: 00:03 \{*P.Ko\}/E2: 00:05 \{ *P.BeC\}/E3: 00:12 \{ *P.Ko\}/E9: 00:17 \{ *P.BeC\}/E11: 00:27 \{ ${ }^{*}$ P.Ko\}/E12: 00:31 \{*P.Al\}/E13: 00:34 \{*P.Ko\}/E14: 00:34 \{*P.Al\}/E15: 00:39 \{P.Ko- \}

4x20 Qpid
E5: 00:04 \{*P.Pi\}/E6: 00:13 \{*P.A1\}/E7: 00:16 \{P.Pi+\}/E8: 00:25 \{M1\}/E9: 00:27 \{M7\}/E11: 00:37 \{P.Pi-\}/E12: 00:39 \{*P.Pi\}/E13: 00:46 \{M7\}/E14: 00:53 \{*P.Tr\}/E15: 01:01 \{P.Al+\}
$4 \times 21$ The Drumhead
E3: 00:02 \{*P.Pi\}/E9: 00:26 \{P.Wo-\}/E12: 00:27 \{*P.BW\}/E13: 00:29 \{*P.Wo\}/E14: 00:35 \{*P.Tr\}/E15: 00:42 \{M14\}
$4 \times 22$ Half A Life

E3: 00:05 \{*P.Tr\}/E9: 00:12 \{P.Tr-\}/E11: 00:22 \{P.Pi-\}/E12: 00:26 \{*P.Pi\}/E13: 00:33 \{P.Pi-\}/E14: 00:36 \{*P.Pi\}/E15: 00:41 \{P.Pi-\}
$4 \times 23$ The Host
E5: 00:02 \{*P.BeC \}/E6: 00:12 \{ ${ }^{*}$ P.Al\}/E7: 00:15 \{*P.WeC \}/E8: 00:18 \{P.WeC-\}/E9: 00:24 \{*P.BeC \}/E11: 00:32 \{*P.Da\}/E12: 00:35 \{*P.BeC\}/E13: 00:41 \{*P.Da\}/E14: 00:43 \{*P.Al\}/E15: 00:46 \{P.Ya+\}

4x24 The Mind's Eye
E5: 00:04 \{*P.LF\}/E6: 00:16 \{*P.Al\}/E7: 00:38 \{P.LF+\}/E8: 00:54 \{P.LF-\}/E9: 01:14 \{M7\}/E10: 01:26 \{P.LF+\}/E11: 01:29 \{*P.LF $\left.{ }^{23}\right\} /$ E12: 01:44 \{P.LF-\}/E13: 01:50 $\{$ *P.LF\}/E14: 02:00 \{*P.BW\}/E15: (OC) 04:38 \{P.Wo-\}

23 (4x24 E11) Compare to $4 \times 16$ E11, P.LF not longer positively affected

E3: 00:01 \{*P.Pi\}/E9: 00:49 \{P.BW-\}/E12: 00:50 \{*P.BW\}/E13: 00:52 \{*P.Wo\}/E14: 00:58 \{*P.BW\}/E15: 01:07 \{P.BW-\}

4x26 Redemption (1)
E3: 00:03 \{*P.Pi\}/E9: 00:32 \{P.Wo-\}/E10: 00:34 \{P.Wo+\}/E11: 00:44 \{P.Pi-\}/E12: 00:46 \{ ${ }^{*}$ P.Pi\}/E13: 00:50 \{*P.Wo\}/E14: 00:54 \{*P.Pi\}/E15: 01:01 \{P.Wo-\}

5x01 Redemption (2)
Continuation of $4 \times 26$
5x02 Darmok
E3: 00:03 \{ *P.Pi\}/E9: 00:12 \{P.Da-\}/E11: 00:14 \{*P.Da, M6\}/E12: 00:16 \{*P.Pi\}/E13: 00:23 \{*P.Da\}/E14: 00:27 \{*P.Tr, M13\}/E15: 00:44 \{P.Da+\}

5x03 Ensign Ro
E3: 00:01 \{*P.Pi, P.Pi-\}/E9: 00:04 \{P.BW-\}/E12: 00:06 \{*P.BW\}/E13: 00:10 \{P.Pi-\}/E14: 00:15 \{*P.Pi\}/E15: 00:18 \{P.Pi-\}

5x04 Silicon Avatar
E3: 00:01 \{*P.Al\}/E9: 00:25 \{M11\}/E12: 00:36 \{*P.BW\}/E13: 00:47 \{ *P.Ri\}/E14: 00:50 \{*P.Ya, P.Ya-\}/E15: 01:36 \{P.Ri+, P.Ya+\}

5x05 Disaster

E5: 00:02 \{*P.Pi\}/E6: 00:09 \{M1 \}/E7: 00:14 \{*P.Da\}/E8: 00:19 \{P.BW+\}/E9: 00:20 $\{$ P.Ya\}/E12: 00:22 \{*P.BW\}/E13: 00:23 \{*P.Ri\}/E14: 00:28 \{*P.BW, M3\}/E15: 00:30 \{P.BW-\}

5x06 The Game
E5: 00:06 \{*P.Ri, *P.WSA\}/E6: 00:23 \{M6\}/E7: 00:25 \{*P.Ri\}/E8: 00:59 \{P.Ri-\}/E9:
01:16 \{M2\}/E11: 01:33 \{*P.WSA\}/E12: 02:13 \{*P.A1\}/E13: 02:22 \{P.Ri+\}/E14: 02:30 \{M2\}/E15: 02:54 \{P.Ri+\}

5x07 Unification (1)
E3: 00:12 \{*P.Pi\}/E9: 00:24 \{*P.Gu\}/E11: 00:30 \{P.Pi-\}/E12: 00:38 \{*P.Pi\}/E13: 00:41 $\{$ *P.Gu\}/E14: 00:41 \{*P.Ya, *P.WeC, P.WeC+\}/E15: 00:47 \{P.WeC-\}

5x08 Unification (2)
Continuation of 5 x 07

E1: 00:01 \{*P.Pi\}/E2: 00:18 \{*P.Ya\}/E3: 00:24 \{M1 \}/E9: 00:26 \{*P.LF\}/E12: 00:26 \{P.LF-\}/E13: 00:29 \{*P.Ri\}/E14: 00:37 \{P.Al-\}/E15: 00:45 \{M14\}

5x10 New Ground
E3: 00:01 $\left\{{ }^{*}\right.$ P.Pi\}/E9: 00:16 \{*P.LF $\} /$ E10: 0:21 \{P.LF+ $\} /$ E12: 00:59 \{P.LF- $\} /$ E13: 01:04 \{*P.Wo\}/E14: 01:13 \{*P.BW\}/E15: 01:25 \{M14\}

5x11 Hero Worship
E5: 00:03 \{*P.Pi\}/E6: 00:09 \{*P.Al\}/E7: 00:17 \{*P.Da\}/E8: 00:18 \{M1 \}/E9: 00:19 $\{*$ P.Gu $\} / \mathrm{E} 11: 00: 22\{*$ P.Da $\} / \mathrm{E} 12: 00: 25\{*$ P.Pi $\} / \mathrm{E} 13: 00: 26\left\{{ }^{*} \mathrm{P} . \mathrm{Gu}\right\} / \mathrm{E} 14: 00: 28$ \{*P.Al\}/E15: 00:41 \{P.Al+\}

5x12 Violations
E3: 00:03 \{*P.Pi\}/E9: 00:23 \{M7\}/E11: 00:31 \{*P.Wo\}/E12: 00:36 \{*P.BW \}/E13: 00:38 \{*P.Wo, P.BW-\}/E14: 00:46 \{*P.BeC\}/E15: 01:03 \{P.BW-\}

5x13 The Masterpiece Society
E4: 00:01 \{ *P.Al\}/E5: 00:02 \{*P.Pi\}/E6: 00:09 \{*P.Al\}/E7: 00:14 \{*P.Da\}/E8: 00:15 $\left\{\right.$ M1 \}/E9: 00:20 \{*P.Al\}/E12: 00:21 \{*P.BW\}/E13: 00:25 \{ ${ }^{*}$ P.Ri\}/E14: 00:25 \{P.Ri-, *P.BW\}/E15: 00:45 \{P.Al+, P.BW-\}
$5 \times 14$ Conundrum
E3: 00:03 \{*P.Pi\}/E9: 00:28 \{P.Tr- $\} /$ E11: 00:37 \{*P.Da $\} /$ E12: 00:37 $\{*$ P.Tr $\} /$ E13: 00:39 \{P.Tr-\}/E14: 00:49 \{P.Da-\}/E15: 01:24 \{P.Da+\}

5x15 Power Play
E3: 00:03 \{*P.Pi\}/E4: 00:15 \{P.Al-\}/E5: 00:16 \{*P.Pi\}/E6: 00:24 \{*P.Al\}/E7: 00:26 \{*P.Da\}/E8: 00:30 \{M6, P.Al-\}/E9: 00:47 \{*P.Al\}/E11: 00:51 \{*P.Da\}/E12: 00:51 \{M10\}/E13: 00:56 \{*P.Da\}/E14: 00:57 \{P.Al-, M13\}/E15: (OC) 3:35 \{M14\}
$5 \times 16$ Ethics
E3: 00:07 \{*P.Ya\}/E9: 00:09 \{ *P.LF\}/E11: 00:09 \{*P.Wo, P.Tr- $\} /$ E12: 00:17 \{*P.Ya\}/E13: 00:18 \{*P.Wo\}/E14: 00:19 \{*P.Tr\}/E15: 00:21 \{P.Tr-\}

5x17 The Outcast
E3: 00:03 \{*P.Pi\}/E4: 00:13 \{P.Al-\}/E5: 00:16 \{*P.Da\}/E6: 00:23 \{M6\}/E7: 00:26 \{*P.Da\}/E8: 00:26 \{M6, P.Al-\}/E9: 00:40 \{*P.A1\}/E12: 00:42 \{P.Al-\}/E13: 00:46 $\{$ *P.Da\}/E14: 00:46 \{*P.Pi\}/E15: (OC) 03:38 \{M14\}

```
E1:00:01 {M1 }/E2: 00:05 {*P.Ri}/E3:00:06 {*P.Da}/E9:00:14 {*P.LF}/E11: 00:15
{P.En-}/E12: 00:16 {*P.Tr}/E13: 00:20 {*P.Ri}/E14:00:20 {*P.Al}/E15: 00:28
{*P.En}
```

5x19 The First Duty
E3: 00:04 \{*P.Pi\}/E9: 00:15 \{*P.WeC\}/E11: 00:22 \{*P.Wo\}/E12: 00:23 \{*P.Pi\}/E13:
00:27 \{*P.Da\}/E14: 00:32 \{*P.Pi\}/E15: 01:03 \{P.Pi-\}

5x20 Cost Of Living
E3: 00:02 \{*P.Wo\}/E9: 00:05 \{M2\}/E12: 00:08 \{P.A1-\}/E13: 00:13 \{*P.Wo\}/E14: 00:15 \{P.Al-, P.Ya-\}/E15: 00:27 \{M14\}
$5 \times 21$ The Perfect Mate

## E3: 00:01 \{*P.A1\}/E9: 00:09 \{M2\}/E11: 00:10 \{*P.Wo\}/E12: 00:17 \{*P.Pi\}/E13: 00:18

 \{M7\}/E14: 00:19 \{*P.Ya\}/E15: 00:24 \{P.Al+\}5x22 Imaginary Friend
E3: 00:11 \{*P.Tr\}/E9: 00:15 \{M7\}/E12: 00:25 \{*P.BW\}/E13: 00:25 \{P.BW-\}/E14: 00:28 \{*P.Tr\}/E15: 00:48 \{*P.En $\}$

5x23 I, Borg
E3: 00:03 \{*P.Pi\}/E9: 00:16 \{M11\}/E11: 00:26 \{*P.Da\}/E12: 00:30 \{*P.A1\}/E13: 00:32 \{*P.Da\}/E14: 00:32 \{*P.Al\}/E15: 01:13 \{M14\}

5x24 The Next Phase
E3: 00:08 \{*P.Pi\}/E9: 00:18 \{P.BW-\}/E12: 00:22 \{*P.BW\}/E13: 00:27 \{P.BW-\}/E14: 00:30 \{*P.Pi\}/E15: 00:34 \{P.BW-\}

5x25 The Inner Light

```
E5: 00:02 {*P.Pi}/E6: 00:14 {*P.Al}/E7: 00:15 {*P.Pi}/E8: 00:35 {P.Al-}/E9: 00:44
{M2}/E11:00:46 {*P.Da}/E12: 00:49 {*P.Al}/E13: 00:51 {*P.Wo}/E14: 00:53
{*P.Al}/E15: 00:54 {P.Pi-}
5x26 Time's Arrow (1)
E3: 00:01 {*P.Al}/E4: 00:17 {M10}/E5: 00:19 {*P.BW}/E6: 00:19 {*P.Al}/E7: 00:21
{*P.Pi}/E8: 01:00 {P.Al-}/E9: 01:06 {*P.Al}/E10:01:07 {*P.Da}/E11: 01:08
{M6}/E12: 01:13 {*P.BW}/E13: 01:16 {*P.Da}/E14: 01:17 {*P.A1}/E15: 01:29
{*P.En}
```


## 5 Appendix B

Short forms like *P.Pi, P.Pi+, P.Pi- are shortened to Pi, Pi+, Pi-. For a first view on the pattern season 1 (Appendix A) is recommended. There are detailed information provided for all appearances.

|  | E3* | E4* | E5* | E6 | E7 | E8 | E9 | E10 | E11 | E12 | E13 | E14 | E15 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 6x02 | Pi | Al- | Pi | Al | Ri | Al- | Al |  |  | Al- | Ko | Al | LF+ |
| 6x03 | Pi | Al- | Da | M6 | Ri | Al- | M2 |  | Da | M2 | Wo- | Al | Al+ |
| 6x04 |  |  | Pi | Al | Ri | Al- | Al |  | M6 | Pi | Da | Al | Al+ |
| 6x05 | Pi |  |  |  |  |  | Al+ |  | M5 | Ya | LF | Ri- | M14 |
| 6x06 | Pi | Al- | Pi+ | Al | En | En- | BeC |  | En- | BeC | Ri | Pi | En |
| 6x07 |  |  | Pi | Tr | Pi+ | Al- | Pi+ |  |  | BW | Tr- | Tr | M14 |
| 6x08 | Pi |  |  |  |  |  | LF |  | Da | Pi | LF | M2 | Pi- |
| 6x09 |  |  | Ri | Al | BeC | Wo+ | BeC |  |  | M12 | Ri | BeC | M14 |
| 6x10 | Al |  |  |  |  |  | M7 |  |  | BW | Ri | Pi | M14 |
| 6x12 | Da |  |  |  |  |  | LF |  | Da | Al | LF | Al | M4 |
| 6x13 | Pi | Al- | Ri | Al | BeC | M6 | M2 |  | Wo | BeC | Ri | BeC | M4 |
| 6x14 | Tr |  |  |  |  |  | Tr- |  |  | BW | Tr- | BW | Tr- |
| 6x15 |  |  | BeC | Al | BeC | Pi- | BeC |  | M6 | BeC | Pi- | BeC | Pi- |
| 6x16 | Pi |  |  |  |  |  | BeC |  | M5 | Pi | Pi- | M2 | LF+ |
| 6x18 | Pi | Al- | Pi | M1 | Pi | M1 | BeC |  |  | BW | Ri | BW | $\mathrm{Da}+$ |
| 6x19 | Da |  |  |  |  |  | M7 |  | Pi- | Pi | M1 | Pi | Pi- |
| $6 \times 20$ |  |  | Pi | M6 | Pi | M1 | Al |  | Pi- | Pi | Ri | Pi+ | Pi- |
| $6 \times 21$ |  |  | Ri | Ri- | Da | Ri- | BeC |  |  | M12 | Da | Ri- | Ri+ |
| $6 \times 22$ | Al |  |  |  |  |  | BeC | -M1 |  | BeC | M1 | Al | LF+ |
| 6x23 |  |  | Da | M1 | Ri | M6 | Ya |  | Da | BW | Ri | Wo+ | Wo- |
| 6x24 |  |  | Pi | Al | Da | Al- | Al |  | Ri+ | BeC | Ri+ | Tr | Ri+ |
| 6x25 |  |  | BeC | Ri- | Ri | Ri- | BeC |  | Wo | BeC | Ri | BeC | Da+ |
| 6x26 | Da |  |  |  |  |  | Al+ |  | Da | BW | BW- | BW+ | BW- |

Table 6: The pattern for season 6.

The following table contains the attempt to apply the pattern after the opening credits. For grouped appearances like $\{\mathrm{Tr}, \mathrm{Ri}\}$ both persons appear at the same time. For 1x08, $1 \times 12,1 \times 15,1 \times 19$ and $1 \times 23$ were no further event found for $01: 30 \mathrm{~min}$.

|  | E3* | E4* | E5* | E6 | E7 | E8 | E9 | E10 | E11 | E12 | E13 | E14 | E15 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1x03 | Al |  |  |  |  |  | BeC |  | M6 | Pi | M6 | Al | Da+ |
| 1x04 | \{Da, Tr \} |  |  |  |  |  | Wo+?? |  |  |  |  |  |  |
| 1x05 | Wo |  |  |  |  |  | M2 |  | En- | Pi | LF | Al, En-?? |  |
| 1x06 | En |  |  |  |  |  | WeC |  | $\{\text { Ko, Ya??\} }$ |  |  |  |  |
| 1 x 07 |  |  | Wo | M1 | BeC | M6 | Wo- |  | Wo | BeC | LF | Pi | Wo- |
| 1x08 |  |  | Pi | Al | Ya | ?? |  |  |  |  |  |  |  |
| 1x09 | Wo |  |  |  |  |  | BeC |  | M6 | Pi | Wo | Pi | Pi- |
| 1x10 |  |  | Pi | Al | Ya | Ya- |  |  |  |  |  |  |  |
| 1x11 | \{Tr, Ri\} |  |  |  |  |  | Tr- | Ri-?? |  |  |  |  |  |
| 1x12 |  |  | Pi | Al | Pi | M1 | Al | ?? |  |  |  |  |  |
| 1x13 |  |  | Ri | Al | Ri | M6 | Ya |  | Da | Ya | Da | Ya | M14 |
| 1x14 | Al |  |  |  |  |  | WeC |  |  | BW | Ri | Tr | En |
| 1x15 |  |  | Ri | Al | Ri | Al- | Ya |  | En- | En | LF | Ya | ?? |
| 1x16 | Al |  |  |  |  |  | LF |  | Da | Pi | WeC | Al | WeC- |
| 1x17 | Pi |  |  |  |  |  | LF |  |  | BW | M6 | Pi | En |
| 1x18 | Al, BW, \{Ri, Tr, Ya, Da, LF??\} |  |  |  |  |  |  |  |  |  |  |  |  |
| 1x19 | Al, M1, \{Wo, Ko, Pi\} |  |  |  |  |  | ?? |  |  |  |  |  |  |
| 1x20 | Wo |  |  |  |  |  | Wo- |  | Da | M12 | Ri | Al | M14 |
| 1x21 | Al | Al- | Da | M6 | Ri | M6 | A1 | \{Pi, Tr, Wo??\} |  |  |  |  |  |
| $1 \times 22$ |  |  | Wo | Al | Da | M6 | Al |  | Da | BW | Wo | Al | M14 |
| $1 \times 23$ |  |  | Pi | Al | Ya | En- | En |  | Da | Pi | Da | Pi | ?? |
| 1x24 | Al |  |  |  |  |  | LF |  |  | BW | Da | Pi | BW- |
| 1x25 | Al |  |  |  |  |  | LF |  | Da | Al | Da | Al | M14 |
| 1x26 | Al |  |  |  |  |  | LF |  | Da | BW | Ri | BW | M14 |

Table 7: Content of Appendix C

## 6 Appendix C

1x03 The Naked Now
E3: (OC) 05:55 \{*P.A1, P.Pi-\}/E9: 06:08 \{*P.BeC \}/E11: 06:14 \{M6\}/E12: 06:17 \{*P.Pi\}/E13: 06:36 \{M6\}/E14: 06:42 \{*P.Al\}/E15: 06:48 \{P.Da+\}

1x04 Code Of Honor

E3: (OC) 05:18 \{*P.Da, *P.Ya, *P.Wo, P.Wo+??\}
1x05 The Last Outpost
E3: (OC) 05:38 \{*P.Wo\}/E9: 05:54 \{M2\}/E11: 05:58 \{P.En-\}/E12: 06:00 \{*P.Pi\}/E13: 06:04 \{*P.LF\}/E14: 06:09 \{*P.A1, P.En-??\}

1x06 Where No One Has Gone Before
E3: (OC) 05:28 \{*P.En\}/E9: 05:43 \{*P.WeC\}/E11: 05:54 \{*P.Ko, M1, *P.Ya??\}
1x07 Lonely Among Us
E5: (OC) 05:57 \{*P.Wo, P.Wo-\}/E6: 05:58 \{M1 \}/E7: 05:59 \{*P.BeC\}/E8: 06:02 \{M6\}/E9: 06:13 \{P.Wo-\}/E11: 06:21 \{*P.Wo\}/E12: 06:40 \{*P.BeC\}/E13: 06:43 \{*P.LF\}/E14: 06:57 \{*P.Pi\}/E15: 07:56 \{P.Wo-\}

1x08 Justice

E5: (OC) 04:15 \{*P.Pi\}/E6: 04:19 \{*P.Al\}/E7: 04:20 \{*P.Ya\}/E8: ??
1x09 The Battle
E3: (OC) 05:26 \{*P.Wo\}/E9: 05:27 \{*P.BeC\}/E11: 05:27 \{M6\}/E12: 05:28
$\left\{{ }^{*}\right.$ P.Pi $\} /$ E13: 05:34 $\{*$ P.Wo $\} /$ E14: 05:38 \{*P.Pi\}/E15: 05:40 \{P.Pi-\}
1x10 Hide And Q
E5: (OC) 04:07 \{*P.Pi\}/E6: 04:10 \{*P.Al\}/E7: 04:13 \{*P.Ya, P.Ya-??\}
1x11 Haven

E3: (OC) 04:39 \{*P.Tr, *P.Ri\}/E9: 05:11 \{P.Tr-, P.Ri-??\}
1x12 The Big Goodbye
E5: (OC) 05:40 \{*P.Pi\}/E6: 05:59 \{*P.A1\}/E7: 06:05 \{*P.Pi\}/E8: 07:12 \{M1 \}/E9: 07:23 \{*P.Al\}/E10: ??

```
E5: (OC) 05:14 {*P.Ri}/E6: 05:20 {*P.Al}/E7: 05:29 {*P.Ri}/E8: 05:33 {M6}/E9:
05:36 {*P.Ya}/E11: 05:47 {*P.Da, *P.Ri}/E12: 05:48 {*P.Ya}/E13: 05:51 {*P.Da}/E14:
05:59 {M13}/E15: 06:24 {M14}
1x14 Angel One
E3: (OC) 04:23 {*P.Al}/E9: 04:31 {*P.WeC}/E12: 04:32 {*P.BW}/E13: 04:34
{*P.Ri}/E14: 04:38 {*P.Tr}/E15: 05:02 {*P.En}
1x15 11001001
```

E5: (OC) 07:03 \{ ${ }^{*}$ P.Ri\}/E6: 07:08 \{ ${ }^{*}$ P.Al\}/E7: 07:15 $\left\{{ }^{*}\right.$ P.Ri\}/E8: 07:52 \{P.Al-,
P.En- \}/E9: 08:05 \{ *P.Ya\}/E11: 08:08 \{P.En-\}/E12: 08:20 \{*P.En\}/E13: 08:28
$\{$ *P.LF\}/E14: 08:34 \{*P.Ya, P.BeC- \}/E15: ??

1x16 Too Short A Season
E3: (OC) 04:54 \{*P.Al\}/E9: 04:55 \{*P.LF\}/E11: 04:59 \{*P.Da\}/E12: 05:05 \{*P.Pi, *P.Al\}/E13: 05:10 \{*P.WeC\}/E14: 05:10 \{*P.Al\}/E15: 05:36 \{P.WeC-\}

1x17 When The Bough Breaks
E3: (OC) 04:58 \{ *P.Pi\}/E9: 05:22 \{*P.LF \}/E12: 05:24 \{*P.BW\}/E13: 05:25 \{M6\}/E14: 05:27 \{*P.Pi\}/E15: 05:34 \{*P.En\}

1x18 Home Soil
E3: (OC) 05:02 \{*P.A1, *P.BW, *P.Da, *P.LF??\}
1x19 Coming of Age

## E3: (OC) 04:01 \{*P.Wo, *P.Pi, P.Wo+??\}

1x20 Heart Of Glory
E3: (OC) 05:01 \{*P.Wo\}/E9: 05:10 \{P.Wo- $\} /$ E11: 05:14 \{*P.Da $\} /$ E12: 05:30
\{M12\}/E13: 05:31 \{*P.Ri\}/E14: 05:48 \{*P.Al\}/E15: 06:07 \{M14\}
1x21 The Arsenal Of Freedom
E3: (OC) 05:48 \{*P.Al, *P.Pi\}/E4: 05:55 \{P.Al-, *P.Al\}/E5: 06:10 \{*P.Da\}/E6: 06:16 \{M6\}/E7: 06:18 \{*P.Ri\}/E8: 06:31 \{M6\}/E9: 06:34 \{*P.Al, *P.Tr, *P.Wo??\}

1x22 Symbiosis
E5: (OC) 06:04 \{*P.Wo\}/E6: 06:06 \{*P.Al\}/E7: 06:08 \{*P.Da\}/E8: 06:09 \{M6\}/E9: 06:14 \{*P.Al\}/E11: 06:16 \{*P.Da\}/E12: 06:17 \{*P.BW\}/E13: 06:19 \{*P.Wo\}/E14: 06:20 \{*P.Al\}/E15: 06:25 \{M14\}

```
E5: (OC) 04:47 {*P.Pi}/E6: 04:54 {*P.Al}/E7: 05:04 {*P.Ya}/E8: 05:21 {P.En-}/E9:
05:28 {*P.En, *P.Al}/E11: 05:41 {*P.Da}/E12: 05:52 {*P.Pi}/E13: 05:53 {*P.Da}/E14:
05:58 {*P.Pi}/E15: ??
```

1x24 We'll Always Have Paris
E3: (OC) 05:26 \{*P.Al\}/E9: 05:26 \{*P.LF $\} /$ E12: 05:33 $\{*$ P.BW $\} /$ E13: 05:35 \{*P.Da\}/E14: 05:36 \{P.BW+\}/E15: 05:46 \{P.BW-\}

1x25 Conspiracy
E3: (OC) 05:47 \{ *P.Al, M1 \}/E9: 05:50 \{*P.LF\}/E11: 05:51 \{ *P.Da\}/E12: 05:53
\{*P.Al\}/E13: 05:54 \{*P.Da\}/E14: 05:55 \{*P.Al\}/E15: 06:04 \{M14\}
1x26 The Neutral Zone
E3: (OC) 05:03 \{*P.Al, *P.BW \}/E9: 05:39 \{*P.LF\}/E11: 05:49 \{ ${ }^{*}$ P.Da $\} /$ E12: 05:56 \{*P.BW\}/E13: 05:57 \{*P.Ri\}/E14: 05:57 \{*P.BW\}/E15: 06:16 \{M14\}

## References

[1] http://dx.doi.org/10.1371/journal.pone. 0010613
[2] http://www.northeastern.edu/news/stories/2010/02/network_science.html
[3] Morgan, J. Naturally Good: The Behavioral History of Moral Development (from Charles Darwin to E.O. Wilson). Cloverdale Corporation, 2005, page 28
[4] Shrout P, Fleiss J.Intraclass correlations: uses in assessing rater reliability. Psychol Bull, 1979, pages 420-428
[5] Franklin, A. Shifting Standards: Experiments in Particle Physics in the Twentieth Century. University of Pittsburgh Press, 2013, page 51
[6] http://www.bbc.co.uk/cult/st/interviews/fatjo/page5.shtml
[7] http://www.webcitation.org/5ybc7Wqbr
[8] Hardcastle, V. Constructing the Self. John Benjamins Publishing, 2008, page 105
[9] Petronis A, Mill J. Brain, Behavior and Epigenetics. Springer, 2011, page 169
[10] Armstrong, E. Bird Display. Cambridge University Press, 1965, page 198
[11] Avise, J. Molecular Markers, Natural History and Evolution. Springer, 1994, page 100
[12] Boundless. Microbiology. Boundless, 2013, page 873
[13] http://www.jeffgreenwald.com/books/future-perfect/


[^0]:    1 Corresponding author: MartinDubreuil@t-online.de

[^1]:    2 http://www.startrek.com/videos/star-trek-the-next-generation

[^2]:    3 Example: 1x09 E9
    4 3x03 E11

[^3]:    5 Examples: 1x04: E3, 3x25: E9

[^4]:    6 Can also appear as child, examples: 1x17, 1x19
    7 Guinan, appears in: $3 \times 15,3 \times 21,4 \times 14,5 \times 07,5 \times 11$ and $6 \times 22$
    8 Kosinski or Barclay, appears in: $1 \times 06,3 \times 21$ and $4 \times 19$
    9 Woman without special abilities, appears in: $1 \times 03,3 \times 06,3 \times 22,3 \times 25$ and $5 \times 06$
    10 Not necessary

[^5]:    11 ( 1 x 01 E 12 ) The crew is mentioned, the crew in ST:TNG consist of 1000 persons
    12 (1x03 E6, E12) A starfleet science vessel is mentioned
    13 (1x03 E8) Problems on the starfleet science vessel are mentioned
    14 (1x03 E9) Number of persons visible at the same time exceeds 5
    15 (1x03 E11) Data starts to speak
    16 ( 1 x 03 E 13 ) Woman without special abilities, appears in: $1 \times 03,3 \times 06,3 \times 22,3 \times 25$ and $5 \times 06$
    17 (1x03 E13) Riker appears again through disappearance before, Picard was visible since E7 without interruption, he does not appear again
    18 (1x04 E3, E12) Number of persons visible at the same time exceeds 5
    19 (1x04 E9) Data was recognisable since E3 without interruption, he does not appear again, La Forge appears again through disappearance before and starting to speak
    20 (1x04 E13) Data is named and has the helm
    21 (1x04 E14) Picard, Riker and Troi appear again through disappearance shortly before

