

# Fragebogen

## 1 General\_Instruction

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### Trigger:

Zufallstrigger - rand - realizes pseudo randomization of subjects - Bedingung: - Ausführungsposition: "nach dem Abschicken, vor Filtern"  
c\_0001 = BALANCED RAND (1 , 2)

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Dear participant,

thank you very much for your participation in this experiment in which we investigate causal reasoning.

On the next screens, we will show a fictitious scenario that we use to investigate this issue.

Please take your time and make sure that you fully understand the scenario. This is important for us because we will later ask you to provide particular judgments. Please note that we are interested in your **intuitive decisions**.

### Before you start, please:

- **maximize your browser window;**
- **switch off phone/e-mail/music & anything else distracting**
- **and please enter your Prolific ID [it can be found at the top of this webpage or when going to your account info]:**

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## 2 Filter multiple\_diverse\_effects

c\_0001 condition Benutzerdefinierte Variable - condition (von Seite : System) gleich 1

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### 2.1.1 blue\_diverse\_red\_vision

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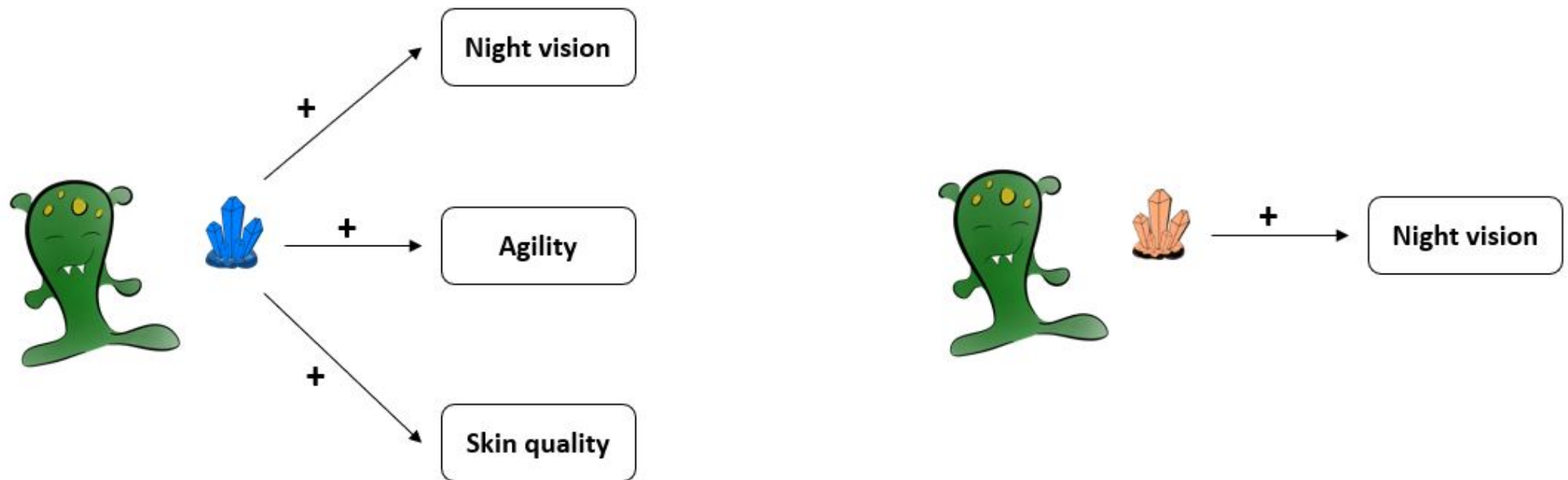
*Please read the following scenario:*

A remote planet of our galaxy, called Morgania, is inhabited by tiny Aliens, called Morganians. The regular diet of Morganians consists of plants of different

types. From time to time, however, Morganians also seek and swallow particular crystals because these crystals can lead to positive effects. There are two different types of crystals, *blue* and *red*.

Blue crystals are very valuable because they possess the capacity to produce *multiple positive* effects. Blue crystals can lead to improved *night vision*, improved *agility*, and improved *skin quality*.

Red crystals are less valuable because they only possess the capacity to produce a single positive effect. Red crystals can only lead to improved *night vision*.



We now would like to get to know your intuition about the causal strength with which eating blue or eating red crystals causes improved night vision. To express your intuition about the causal strength, please answer the following question:

**What do you think is the probability with which eating red crystals leads to improved night vision?**

*Please use the following rating scale to provide your estimation.*

- ☐ It never leads to improved night vision
- ☐
- ☐
- ☐
- ☐
- ☐ 50:50
- ☐
- ☐
- ☐
- ☐
- ☐ It always leads to improved night vision

**What do you think is the probability with which eating blue crystals leads to improved night vision?**

*Please use the following rating scale to provide your estimation.*

- ☐ It never leads to improved night vision
- ☐
- ☐
- ☐
- ☐
- ☐ 50:50
- ☐

- ☐
- ☐
- ☐
- ☐ It always leads to improved night vision

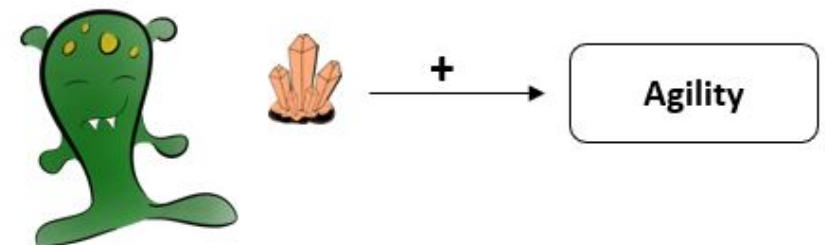
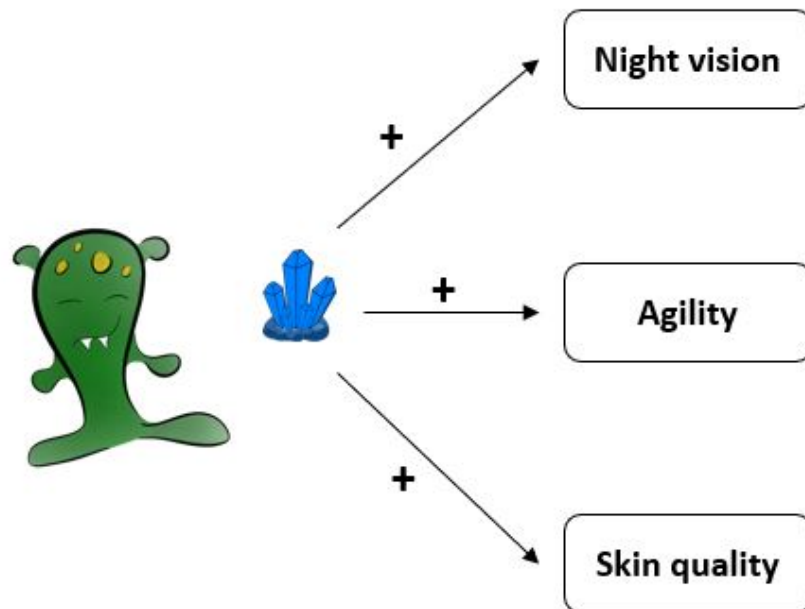
### 2.1.2 blue\_diverse\_red\_agility

Please read the following scenario:

A remote planet of our galaxy, called Morgania, is inhabited by tiny Aliens, called Morganians. The regular diet of Morganians consists of plants of different types. From time to time, however, Morganians also seek and swallow particular crystals because these crystals can lead to positive effects. There are two different types of crystals, *blue* and *red*.

Blue crystals are very valuable because they possess the capacity to produce *multiple positive* effects. Blue crystals can lead to improved *night vision*, improved *agility*, and improved *skin quality*.

Red crystals are less valuable because they only possess the capacity to produce a single positive effect. Red crystals can only lead to improved *agility*.



We now would like to get to know your intuition about the causal strength with which eating blue or eating red crystals causes improved agility. To express your intuition about the causal strength, please answer the following question:

**What do you think is the probability with which eating red crystals leads to improved agility?**

*Please use the following rating scale to provide your estimation.*

☐ It never leads to improved agility

☐☐☐☐

☐ 50:50

☐☐☐☐

☐ It always leads to improved agility

**What do you think is the probability with which eating blue crystals leads to improved agility?**

*Please use the following rating scale to provide your estimation.*

☐ It never leads to improved agility

- ☐
- ☐
- ☐
- ☐
- ☐ 50:50
- ☐
- ☐
- ☐
- ☐
- ☐ It always leads to improved agility

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### 2.1.3 blue\_diverse\_red\_skin

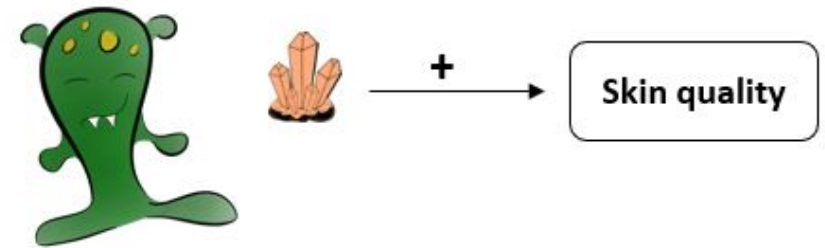
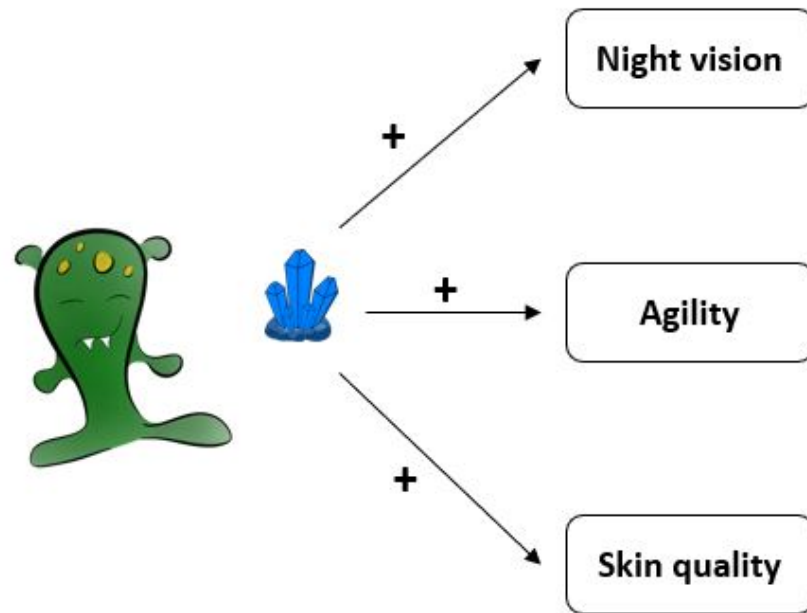
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*Please read the following scenario:*

A remote planet of our galaxy, called Morgania, is inhabited by tiny Aliens, called Morganians. The regular diet of Morganians consists of plants of different types. From time to time, however, Morganians also seek and swallow particular crystals because these crystals can lead to positive effects. There are two different types of crystals, *blue* and *red*.

Blue crystals are very valuable because they possess the capacity to produce *multiple positive* effects. Blue crystals can lead to improved *night vision*, improved *agility*, and improved *skin quality*.

Red crystals are less valuable because they only possess the capacity to produce a single positive effect. Red crystals can only lead to improved *skin quality*.



We now would like to get to know your intuition about the causal strength with which eating blue or eating red crystals causes improved skin quality. To express your intuition about the causal strength, please answer the following question:

**What do you think is the probability with which eating blue crystals leads to improved skin quality?**

*Please use the following rating scale to provide your estimation.*

- ☐ It never leads to improved skin quality
- ☐
- ☐
- ☐
- ☐

- ☐ 50:50
- ☐
- ☐
- ☐
- ☐
- ☐ It always leads to improved skin quality

**What do you think is the probability with which eating red crystals leads to improved skin quality?**

*Please use the following rating scale to provide your estimation.*

- ☐ It never leads to improved skin quality
- ☐
- ☐
- ☐
- ☐
- ☐ 50:50
- ☐
- ☐
- ☐
- ☐ It always leads to improved skin quality

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#### **2.1.4 red\_diverse\_blue\_vision**

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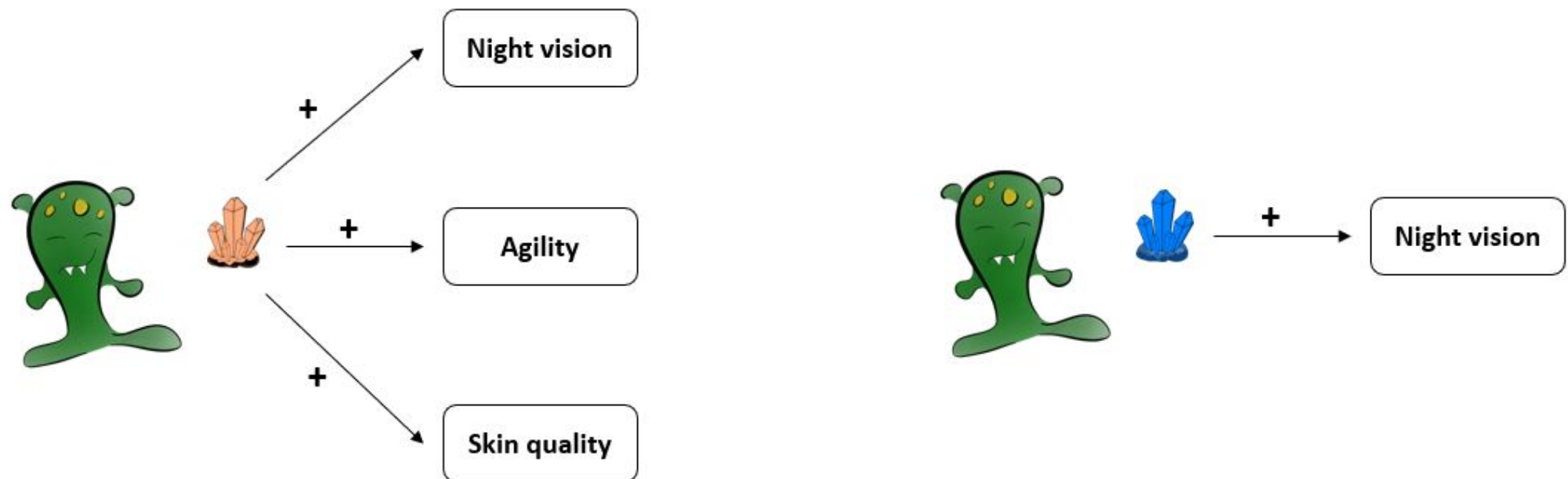
*Please read the following scenario:*



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Blue crystals are less valuable because they only possess the capacity to produce a single positive effect. Blue crystals can only lead to improved *night vision*.



We now would like to get to know your intuition about the causal strength with which eating red or eating blue crystals causes improved night vision. To express your intuition about the causal strength, please answer the following question:

**What do you think is the probability with which eating blue crystals leads to improved night vision?**

*Please use the following rating scale to provide your estimation.*

- ☐ It never leads to improved night vision
- ☐
- ☐
- ☐
- ☐
- ☐ 50:50
- ☐
- ☐
- ☐
- ☐
- ☐ It always leads to improved night vision

**What do you think is the probability with which eating red crystals leads to improved night vision?**

*Please use the following rating scale to provide your estimation.*

- ☐ It never leads to improved night vision
- ☐
- ☐
- ☐
- ☐
- ☐ 50:50
- ☐

- ☐
- ☐
- ☐
- ☐ It always leads to improved night vision

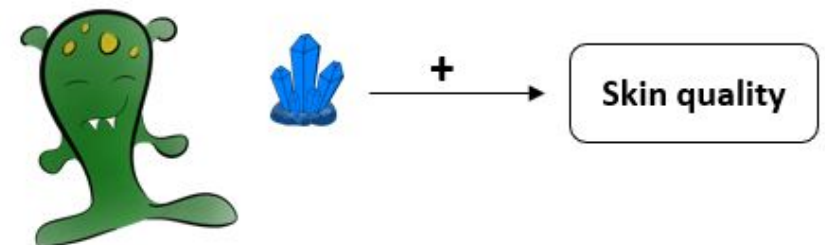
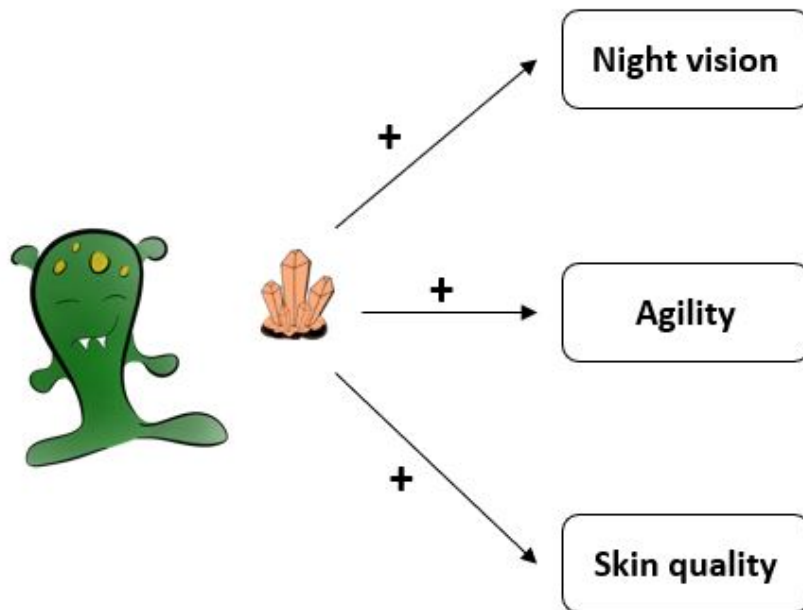
### 2.1.5 red\_diverse\_blue\_agility

Please read the following scenario:

A remote planet of our galaxy, called Morgania, is inhabited by tiny Aliens, called Morganians. The regular diet of Morganians consists of plants of different types. From time to time, however, Morganians also seek and swallow particular crystals because these crystals can lead to positive effects. There are two different types of crystals, *red* and *blue*.

Red crystals are very valuable because they possess the capacity to produce *multiple positive* effects. Red crystals can lead to improved *night vision*, improved *agility*, and improved *skin quality*.

Blue crystals are less valuable because they only possess the capacity to produce a single positive effect. Blue crystals can only lead to improved *agility*.



We now would like to get to know your intuition about the causal strength with which eating red or eating blue crystals causes improved skin quality. To express your intuition about the causal strength, please answer the following question:

**What do you think is the probability with which eating blue crystals leads to improved skin quality?**

*Please use the following rating scale to provide your estimation.*

- ☐ It never leads to improved skin quality
- ☐
- ☐
- ☐
- ☐
- ☐ 50:50
- ☐
- ☐
- ☐
- ☐ It always leads to improved skin quality

**What do you think is the probability with which eating red crystals leads to improved skin quality?**

*Please use the following rating scale to provide your estimation.*

- ☐ It never leads to improved skin quality

- ☐
- ☐
- ☐
- ☐
- ☐ 50:50
- ☐
- ☐
- ☐
- ☐
- ☐ It always leads to improved skin quality

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### 2.1.6 red\_diverse\_blue\_skin

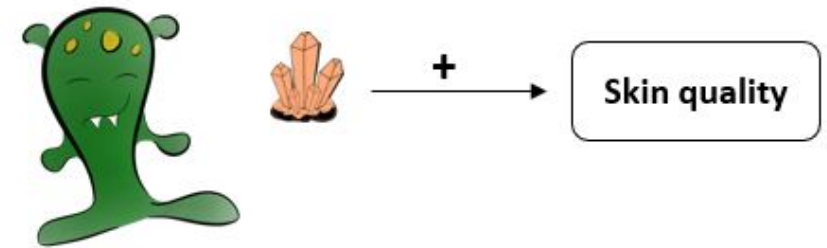
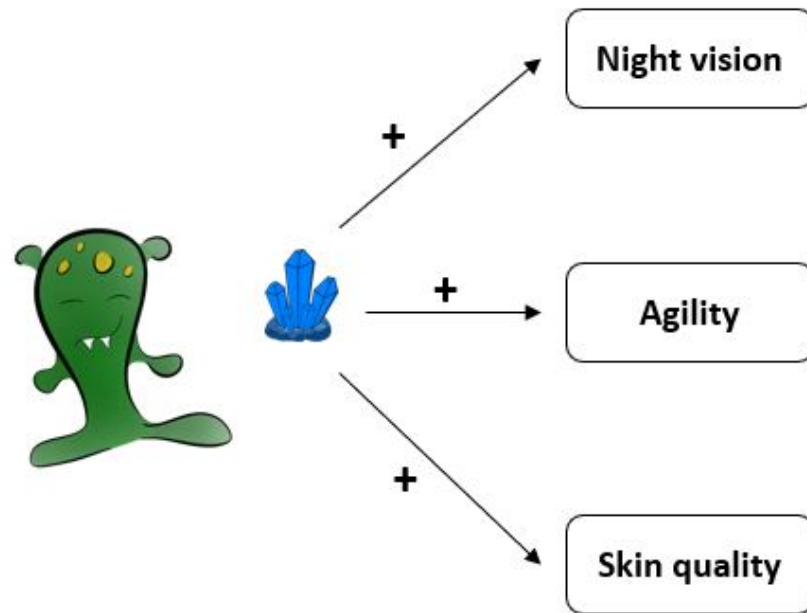
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*Please read the following scenario:*

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Red crystals are less valuable because they only possess the capacity to produce a single positive effect. Red crystals can only lead to improved *skin quality*.



We now would like to get to know your intuition about the causal strength with which eating blue or eating red crystals causes improved skin quality. To express your intuition about the causal strength, please answer the following question:

**What do you think is the probability with which eating red crystals leads to improved skin quality?**

*Please use the following rating scale to provide your estimation.*

- ☐ It never leads to improved skin quality
- ☐
- ☐
- ☐
- ☐

- ☐ 50:50
- ☐
- ☐
- ☐
- ☐
- ☐ It always leads to improved skin quality

**What do you think is the probability with which eating blue crystals leads to improved skin quality?**

*Please use the following rating scale to provide your estimation.*

- ☐ It never leads to improved skin quality
- ☐
- ☐
- ☐
- ☐
- ☐ 50:50
- ☐
- ☐
- ☐
- ☐ It always leads to improved skin quality

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### 3 Filter multiple\_similar\_effects

c\_0001 condition Benutzerdefinierte Variable - condition (von Seite : System) gleich 2

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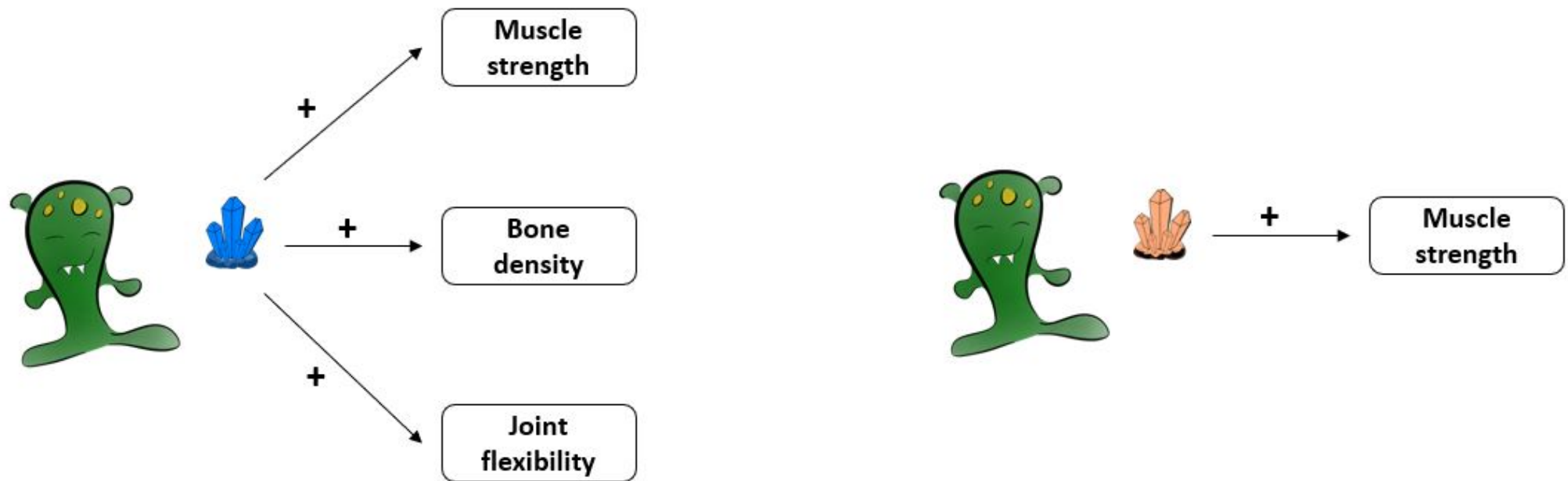
### 3.1.1 blue\_similar\_red\_muscle

Please read the following scenario:

A remote planet of our galaxy, called Morgania, is inhabited by tiny Aliens, called Morganians. The regular diet of Morganians consists of plants of different types. From time to time, however, Morganians also seek and swallow particular crystals because these crystals can lead to positive effects. There are two different types of crystals, *blue* and *red*.

Blue crystals are very valuable because they possess the capacity to produce *multiple positive* effects. Blue crystals can lead to improved *muscle strength*, improved *bone density*, and improved *joint flexibility*.

Red crystals are less valuable because they only possess the capacity to produce a single positive effect. Red crystals can only lead to improved *muscle strength*.



We now would like to get to know your intuition about the causal strength with which eating blue or eating red crystals causes improved muscle strength. To express your intuition about the causal strength, please answer the following question:



**What do you think is the probability with which eating blue crystals leads to improved muscle strength?**

*Please use the following rating scale to provide your estimation.*

- ☐ It never leads to improved muscle strength
- ☐
- ☐
- ☐
- ☐
- ☐ 50:50
- ☐
- ☐
- ☐
- ☐
- ☐ It always leads to improved muscle strength

**What do you think is the probability with which eating red crystals leads to improved muscle strength?**

*Please use the following rating scale to provide your estimation.*

- ☐ It never leads to improved muscle strength
- ☐
- ☐
- ☐

- ☐
- ☐ 50:50
- ☐
- ☐
- ☐
- ☐
- ☐ It always leads to improved muscle strength

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### 3.1.2 blue\_similar\_red\_bone

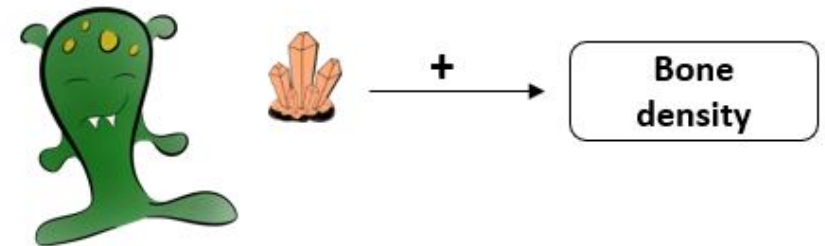
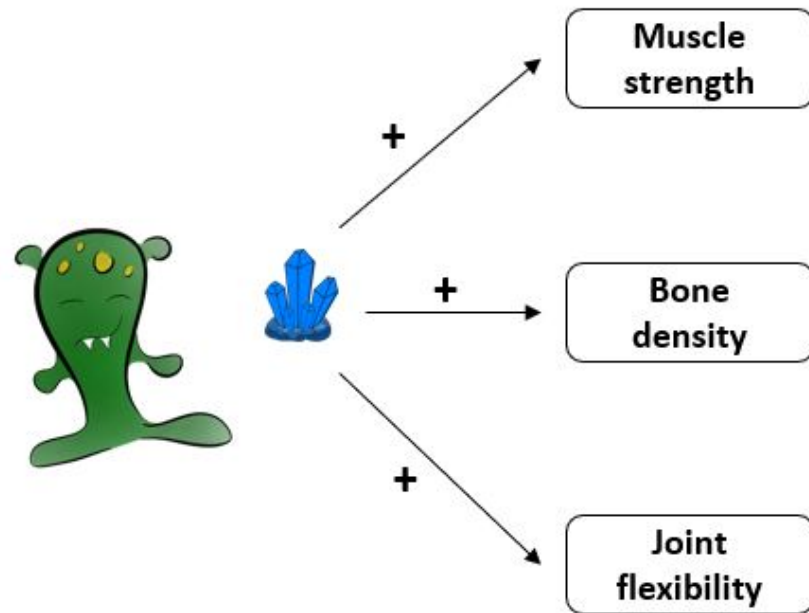
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*Please read the following scenario:*

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Red crystals are less valuable because they only possess the capacity to produce a single positive effect. Red crystals can only lead to improved *bone density*.



We now would like to get to know your intuition about the causal strength with which eating blue or eating red crystals causes improved bone density. To express your intuition about the causal strength, please answer the following question:

**What do you think is the probability with which eating blue crystals leads to improved bone density?**

*Please use the following rating scale to provide your estimation.*

- ☐ It never leads to improved bone density
- ☐
- ☐
- ☐
- ☐

- ☐ 50:50
- ☐
- ☐
- ☐
- ☐
- ☐ It always leads to improved bone density

**What do you think is the probability with which eating red crystals leads to improved bone density?**

*Please use the following rating scale to provide your estimation.*

- ☐ It never leads to improved bone density
- ☐
- ☐
- ☐
- ☐
- ☐ 50:50
- ☐
- ☐
- ☐
- ☐ It always leads to improved bone density

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### **3.1.3 blue\_similar\_red\_joint**

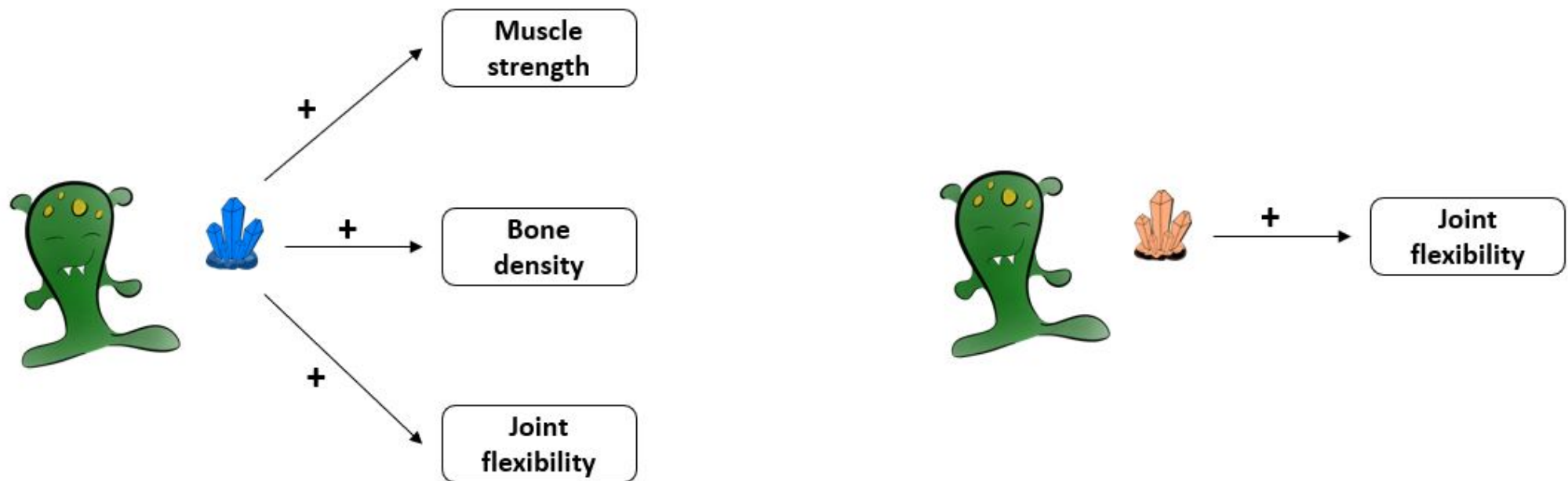
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*Please read the following scenario:*

A remote planet of our galaxy, called Morgania, is inhabited by tiny Aliens, called Morganians. The regular diet of Morganians consists of plants of different types. From time to time, however, Morganians also seek and swallow particular crystals because these crystals can lead to positive effects. There are two different types of crystals, *blue* and *red*.

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Red crystals are less valuable because they only possess the capacity to produce a single positive effect. Red crystals can only lead to improved *joint flexibility*.



We now would like to get to know your intuition about the causal strength with which eating blue or eating red crystals causes improved joint flexibility. To express your intuition about the causal strength, please answer the following question:

**What do you think is the probability with which eating red crystals leads to improved joint flexibility?**

*Please use the following rating scale to provide your estimation.*

- ☐ It never leads to improved joint flexibility
- ☐
- ☐
- ☐
- ☐
- ☐ 50:50
- ☐
- ☐
- ☐
- ☐ It always leads to improved joint flexibility

**What do you think is the probability with which eating blue crystals leads to improved joint flexibility?**

*Please use the following rating scale to provide your estimation.*

- ☐ It never leads to improved joint flexibility
- ☐
- ☐
- ☐
- ☐
- ☐ 50:50
- ☐

- ☐
- ☐
- ☐
- ☐ It always leads to improved joint flexibility

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### 3.1.4 red\_similar\_blue\_muscle

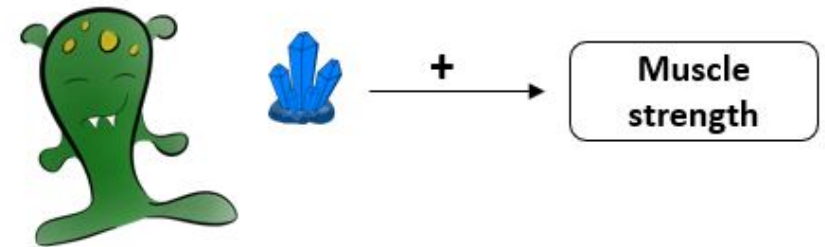
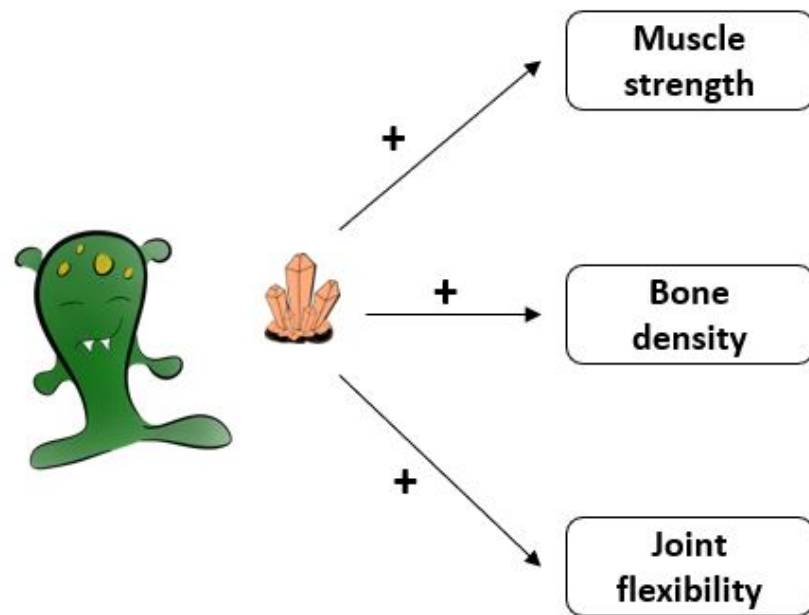
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*Please read the following scenario:*

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Blue crystals are less valuable because they possess the capacity to produce only a single positive effect. Blue crystals can only lead to improved *muscle strength*.



We now would like to get to know your intuition about the causal strength with which eating red or eating blue crystals causes improved muscle strength. To express your intuition about the causal strength, please answer the following question:

**What do you think is the probability with which eating blue crystals leads to improved muscle strength?**

*Please use the following rating scale to provide your estimation.*

- ☐ It never leads to improved muscle strength
- ☐
- ☐
- ☐
- ☐



- ☐ 50:50
- ☐
- ☐
- ☐
- ☐
- ☐ It always leads to improved muscle strength

**What do you think is the probability with which eating red crystals leads to improved muscle strength?**

*Please use the following rating scale to provide your estimation.*

- ☐ It never leads to improved muscle strength
- ☐
- ☐
- ☐
- ☐
- ☐ 50:50
- ☐
- ☐
- ☐
- ☐ It always leads to improved muscle strength

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### 3.1.5 red\_similar\_blue\_bone

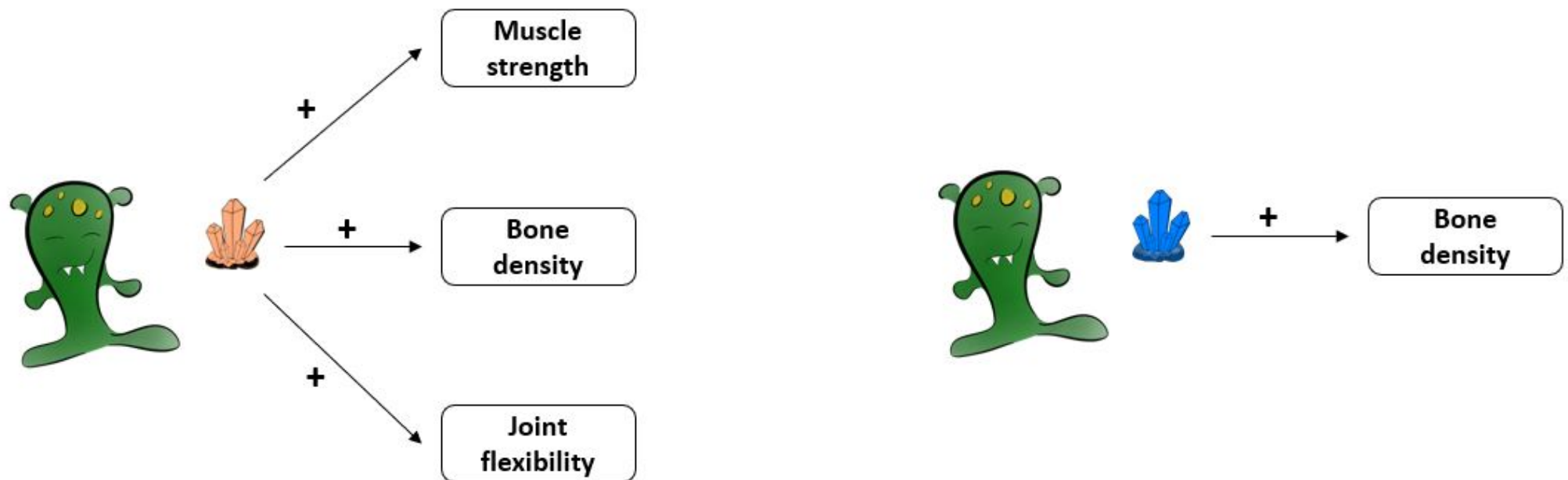
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*Please read the following scenario:*

A remote planet of our galaxy, called Morgania, is inhabited by tiny Aliens, called Morganians. The regular diet of Morganians consists of plants of different types. From time to time, however, Morganians also seek and swallow particular crystals because these crystals can lead to positive effects. There are two different types of crystals, *red* and *blue*.

Red crystals are very valuable because they possess the capacity to produce *multiple positive* effects. Red crystals can lead to improved *muscle strength*, improved *bone density*, and improved *joint flexibility*.

Blue crystals are less valuable because they only possess the capacity to produce a single positive effect. Blue crystals can only lead to improved *bone density*.



We now would like to get to know your intuition about the causal strength with which eating red or eating blue crystals causes improved bone density. To express your intuition about the causal strength, please answer the following question:

**What do you think is the probability with which eating blue crystals leads to improved bone density?**

*Please use the following rating scale to provide your estimation.*

- ☐ It never leads to improved bone density
- ☐
- ☐
- ☐
- ☐
- ☐ 50:50
- ☐
- ☐
- ☐
- ☐ It always leads to improved bone density

**What do you think is the probability with which eating red crystals leads to improved bone density?**

*Please use the following rating scale to provide your estimation.*

- ☐ It never leads to improved bone density
- ☐
- ☐
- ☐
- ☐
- ☐ 50:50
- ☐

- ☐
- ☐
- ☐
- ☐ It always leads to improved bone density

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### 3.1.6 red\_similar\_blue\_joint

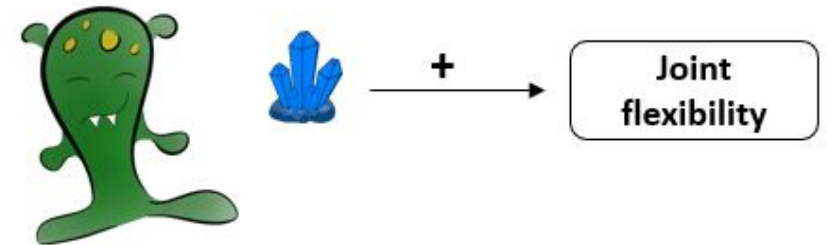
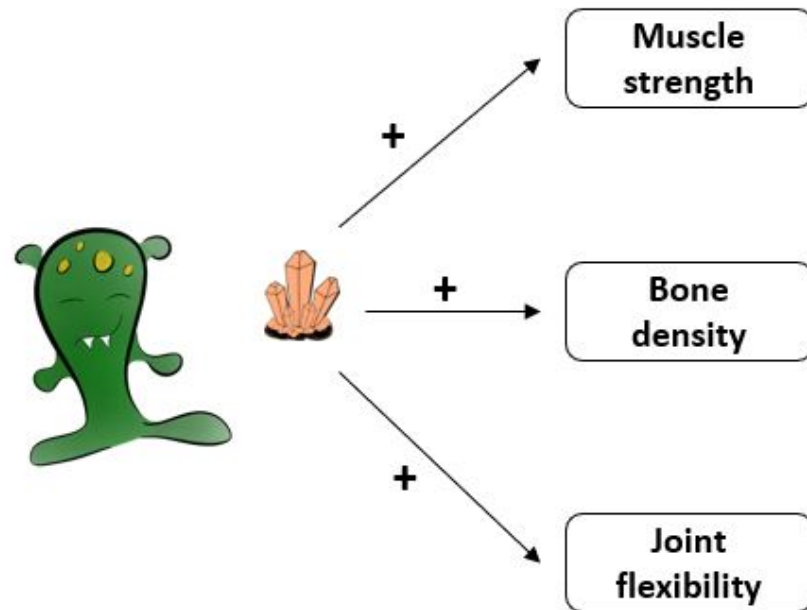
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*Please read the following scenario:*

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Red crystals are very valuable because they possess the capacity to produce *multiple positive* effects. Red crystals can lead to improved *muscle strength*, improved *bone density*, and improved *joint flexibility*.

Blue crystals are less valuable because they only possess the capacity to produce a single positive effect. Blue crystals can only lead to improved *joint flexibility*.



We now would like to get to know your intuition about the causal strength with which eating red or eating blue crystals causes improved joint flexibility. To express your intuition about the causal strength, please answer the following question:

**What do you think is the probability with which eating red crystals leads to improved joint flexibility?**

*Please use the following rating scale to provide your estimation.*

- ☐ It never leads to improved joint flexibility
- ☐
- ☐
- ☐
- ☐

- ☐ 50:50
- ☐
- ☐
- ☐
- ☐
- ☐ It always leads to improved joint flexibility

**What do you think is the probability with which eating blue crystals leads to improved joint flexibility?**

*Please use the following rating scale to provide your estimation.*

- ☐ It never leads to improved joint flexibility
- ☐
- ☐
- ☐
- ☐
- ☐ 50:50
- ☐
- ☐
- ☐
- ☐ It always leads to improved joint flexibility

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#### **4 Demographie**

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Thank you very much for your effort, you are almost done with the survey. Please provide the following additional information:

**Please indicate with which gender you identify.**

- ☐ male
- ☐ female
- ☐ other
- ☐ prefer not to say

**How old are you?**

**Finally, please give a short description about what led you to assume that the different crystals have similar/different powers to produce the effect you were asked about.**

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## 5 Endseite

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Thank you for taking part in this study!

The aim of this experiment is to find out more about how people reason about causality. If you are interested in further details or if you have any questions or comments concerning the experiment, feel free to contact me (Simon Stephan) under [sstepha1@uni-goettingen.de](mailto:sstepha1@uni-goettingen.de)

**To ensure you receive your reward**, please click on the following link to return to the Prolific website:

[Link to Prolific](#)

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