

On the Nature of Reasons

Dean McHugh

Institute of Logic, Language and Computation
University of Amsterdam

7th Asian Workshop on Philosophical Logic
Jadavpur University, Kolkata
8 February 2025



INSTITUTE FOR LOGIC,
LANGUAGE AND COMPUTATION



UNIVERSITY
OF AMSTERDAM

Plan

- 1 Introduction
- 2 Proposal
- 3 The *because* component
 - Sufficiency
 - Difference-making
 - Production
- 4 The because–that principle
- 5 The belief component
 - Reasons are belief-sensitive
 - Hyperintensionality of reasons why
 - Having reasons
 - Belief in *because*
- 6 Conclusion

- (1) ChatGPT being trained on far-right websites caused it to output racist stereotypes.
- (2) Elisabeth Dekker was discriminated against because she was fired because she was pregnant.
- (3) The earthquake is the reason why the bridge collapsed.

Example from Maria Alvarez (2010, p. 36):

- (4) A reason Alice gives money to charity is that she's generous.

- (5) A reason for Alice to give money to charity is that she's generous.

Example from Maria Alvarez (2010, p. 36):

Explanatory reason / reason why:

- (4) A reason Alice gives money to charity is that she's generous.

Motivating reason / reason for:

- (5) A reason for Alice to give money to charity is that she's generous.

Example from Maria Alvarez (2010, p. 36):

Explanatory reason / reason why:

- (4) A reason Alice gives money to charity is that she's generous.

AWPL talk

Motivating reason / reason for:

- (5) A reason for Alice to give money to charity is that she's generous.

ICLA talk

R is a reason why P

just in case

“ P because R ” is true,

and optionally, the relevant agent believes that “ P because R ” is true.

R is a reason why P

just in case

“ P because R ” is true,

and optionally, the relevant agent believes that “ P because R ” is true.

We adopt the analysis of *because* from McHugh (2023a,b)

Thinking in terms of reasons is akin to reading Austen, Flaubert, or Joyce—writers known for their use of free indirect speech—in which the centre of consciousness is free to wander



Why reason about reasons?

- Rationality as responsiveness to reasons (Donald Davidson, Philippa Foot, Christine Korsgaard, Derek Parfit, Joseph Raz, Bernard Williams)

Why reason about reasons?

- Rationality as responsiveness to reasons (Donald Davidson, Philippa Foot, Christine Korsgaard, Derek Parfit, Joseph Raz, Bernard Williams)

What then did I formerly think I was? A man. But what is a man? Shall I say 'a rational animal'? No; for then I should have to inquire what an animal is, what rationality is, and in this way one question would lead me down the slope to other harder ones, and I do not now have the time to waste on subtleties of this kind.

(Descartes 2017, p. 25)

Why reason about reasons?

- Rationality as responsiveness to reasons (Donald Davidson, Philippa Foot, Christine Korsgaard, Derek Parfit, Joseph Raz, Bernard Williams)

What then did I formerly think I was? A man. But what is a man? Shall I say 'a rational animal'? No; for then I should have to inquire what an animal is, what rationality is, and in this way one question would lead me down the slope to other harder ones, and I do not now have the time to waste on subtleties of this kind.

(Descartes 2017, p. 25)

Reasons-responsive theories of

- free will (McKenna 2022)
- moral responsibility (Fischer and Ravizza 1998)
- the nature of morality (Scanlon 1998)

Reasons versus reasoning

We will not discuss reasons in the sense of *reasoning*—a cognitive act.

Not all reasoning is reasoning about reasons, e.g. visual reasoning

Rotating an image in one's imagination is a clear example of visual reasoning, but this act does not involve reasons



Reasons versus reasoning

The connection between reasons and reasoning: An artefact of philosophising in a handful of languages, such as English?
German: *Grund* (reason) versus *Vernunft* (reasoning), as in Kant's *Critik der reinen Vernunft*

Reasons versus reasoning

Languages that use related words for reasons and reasoning include

- Czech (*důvod*, *zdůvodnit*)
- Dutch (*reden*, *rede*)
- Estonian (*põhjus*, *põhjenus*)
- French (*raison*, *raison*)
- Greek (*lógos*, *aitiologísei*)
- Indonesian (*alasan*, *bernalar/pernalaran*)
- Italian (*ragione*, *ragionamento*)
- Portuguese (*razão*, *razão*)

Pascal: “*Le cœur a ses raisons que la raison ne connaît point*” (“The heart has its reasons that reason does not know”) (*Pensées*)

In German, we could translate this as “*Das Herz hat seine Gründe, welche die Vernunft nicht kennt*”

কারণ, যুক্তি

Reasons versus reasoning

Languages that use unrelated words for reasons and reasoning include

- Bengali (*kāraṇa*, *yukti*)
- Danish (*grund*, *fornuft*)
- Finnish (*syy*, *perustella*)
- German (*Grund*, *Vernunft*)
- Hindi (*kaaran*, *tark*)
- Hungarian (*ok*, *érvelni*)
- Latvian (*iemesli*, *saprats*)
- Lithuanian (*priežastis*, *protingas*)
- Norwegian (*grunn*, *resonnere/fornuft*)
- Polish (*powody*, *rozum*)
- Romanian (*motiv*, *raționeze*)
- Russian (*prichina*, *myshleniye*)
- Turkish (*neden*, *muhakeme*)

To be *the F* is to be *an F* subject to additional restrictions

typically that the context contains a unique or familiar object satisfying the predicate (Russell 1905, Strawson 1950, Löbner 1985, Barker 2005, Christophersen 1939, Kamp 1981, Heim 1982, Farkas 2002, Roberts 2003, Rawlins 2005, Schwarz 2009)

A reason versus *the* reason

To be *the F* is to be *an F* subject to additional restrictions

typically that the context contains a unique or familiar object satisfying the predicate (Russell 1905, Strawson 1950, Löbner 1985, Barker 2005, Christophersen 1939, Kamp 1981, Heim 1982, Farkas 2002, Roberts 2003, Rawlins 2005, Schwarz 2009)

For something to be *the table* it must be *a table*

For something to be *the reason why P* it must be *a reason why P*

*R is a reason why P just in case 'P because R' is true,
and optionally, the relevant agent believes that 'P because R' is true.*

Differences between reasons and causes

Reasons and causes are often treated equivalently

Spinoza:

Nothing exists of which it cannot be asked, what is the cause (or reason) [causa (sive ratio)], why it exists.

(Principles of Cartesian Philosophy, Part 1, Axiom 11)

Differences between reasons and causes

But reasons and causes are different

Differences between reasons and causes

But reasons and causes are different

- (6)
 - a. The reason the sentence “It is raining or snowing” is true is that it is raining.
 - b. The sentence “It is raining or snowing” is true because it is raining.
 - c. ??The fact that it is raining causes/is causing the sentence “It is raining or snowing” to be true.

Differences between reasons and causes

But reasons and causes are different

- (7)
 - a. The reason 13 is prime is that it has no factors other than itself and 1.
 - b. 13 is prime because it has no factors other than itself and 1.
 - c. ??The fact that 13 has no factors other than itself and 1 causes/is causing it to be prime.

Differences between reasons and causes

Analysis (McHugh 2023a, pp. 179–181):

- *cause* requires the causal chain to move forward in time
- *reason* and *because* do not

because = *sufficiency* + *difference-making* + *production*

- (8) *E* because *C* is true just in case
- a. *C* is true
 - b. *C* is sufficient for (*C produce E*)
 - c. $\neg C$ is not sufficient for ($\neg C$ produce *E*)

Plan

- 1 Introduction
- 2 Proposal
- 3 The *because* component
 - Sufficiency
 - Difference-making
 - Production
- 4 The because–that principle
- 5 The belief component
 - Reasons are belief-sensitive
 - Hyperintensionality of reasons why
 - Having reasons
 - Belief in *because*
- 6 Conclusion

- (9) *Context: Swapnil was born in India and has an Indian passport.*
- a. Swapnil got an Indian passport because he was born in India.
 - b. Swapnil got an Indian passport because he was born in Asia.
- (10) *Context: The legal drinking age is 18. Bob is 30.*
- a. Alice was allowed to order wine because she is over 18.
 - b. Alice was allowed to order wine because she is over 12.

- (11) *Context: Swapnil was born in India and has an Indian passport.*
- a. The reason Swapnil got an Indian passport was that he was born in India.
 - b. The reason Swapnil got an Indian passport was that he was born in Asia.
- (12)
- a. The reason Alice was allowed to order wine is that she is over 18.
 - b. The reason Alice was allowed to order wine is that she is over 12.

Sufficiency is not counterfactual dependence

Counterfactual dependence

B counterfactually depends on *A* iff if *A* were false, *B* would be false.

- (13)
- a. The reason Alice was allowed to order wine is that she is over 18.
 - b. The reason Alice was allowed to order wine is that she is over 12.

Sufficiency is not counterfactual dependence

Counterfactual dependence

B counterfactually depends on *A* iff if *A* were false, *B* would be false.

- (13)
- a. The reason Alice was allowed to order wine is that she is over 18.
 - b. The reason Alice was allowed to order wine is that she is over 12.

If Alice had been under 18, she wouldn't have been allowed to order wine

Sufficiency is not counterfactual dependence

Counterfactual dependence

B counterfactually depends on *A* iff if *A* were false, *B* would be false.

- (13)
- a. The reason Alice was allowed to order wine is that she is over 18.
 - b. The reason Alice was allowed to order wine is that she is over 12.

If Alice had been under 18, she wouldn't have been allowed to order wine

but certainly, had Alice been under 12, she wouldn't have been allowed to order wine

Analysis of sufficiency

A is sufficient for B just in case at every relevant case where A is true, B is true.

Analysis of ‘relevant’ cases: McHugh (2022, 2023a)

Analysis of sufficiency

A is sufficient for B just in case at every relevant case where A is true, B is true.

Analysis of ‘relevant’ cases: McHugh (2022, 2023a)

E.g. the relevant cases where Swapnil is born in Asia include worlds where he is born in India, Bangladesh, China, ...

Conjunctive sufficiency

$$\frac{A \wedge B}{A > C} \text{ Conjunctive Sufficiency}$$

Conjunctive sufficiency

$$\frac{A \wedge B}{A > C} \text{ Conjunctive Sufficiency}$$

$$\frac{A > B \quad B > A \quad B > C}{A > C} \text{ Reciprocity}$$

Walters and Williams (2013) show that, under mild assumptions, reciprocity ensures that $A \wedge C$ implies $A > C$.

Conjunctive sufficiency

$$\frac{A \wedge B}{A > C} \text{ Conjunctive Sufficiency}$$

$$\frac{A > B \quad B > A \quad B > C}{A > C} \text{ Reciprocity}$$

Walters and Williams (2013) show that, under mild assumptions, reciprocity ensures that $A \wedge C$ implies $A > C$.

Consider any true A , C , and any B that is irrelevant to A and C , in the sense that $(B \vee \neg B) > A$ and $(B \vee \neg B) > C$ hold.

$$\frac{A > (B \vee \neg B) \quad (B \vee \neg B) > A \quad (B \vee \neg B) > C}{A > C} \text{ Reciprocity}$$

Given such a B , Reciprocity tells us that $A \wedge C$ implies $A > C$

Plan

- 1 Introduction
- 2 Proposal
- 3 The *because* component
 - Sufficiency
 - Difference-making
 - Production
- 4 The because–that principle
- 5 The belief component
 - Reasons are belief-sensitive
 - Hyperintensionality of reasons why
 - Having reasons
 - Belief in *because*
- 6 Conclusion

An engineer is standing by a switch in the railroad tracks. A train approaches in the distance. She flips the switch, so that the train travels down the right-hand track, instead of the left. Since the tracks reconverge up ahead, the train arrives at its destination all the same.

(Hall 2000, p. 205)

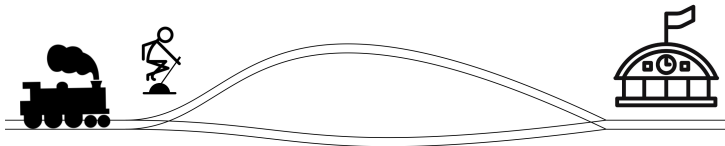


Figure: Hall's (2000) switching scenario.

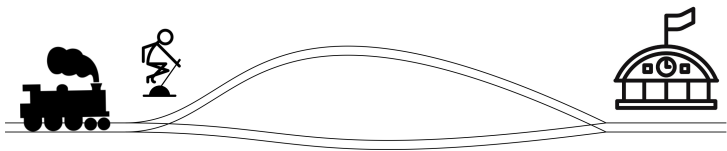


Figure: Hall's (2000) switching scenario.

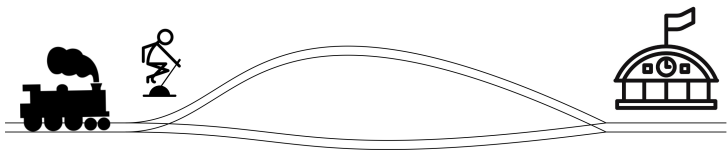


Figure: Hall's (2000) switching scenario.

Consider:

- (14) The train reached the station because the engineer flipped the switch.

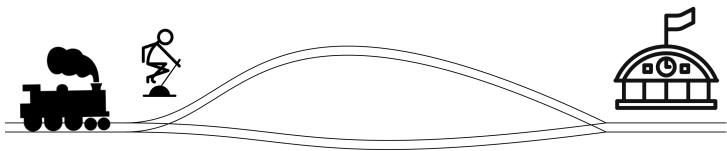


Figure: Hall's (2000) switching scenario.

Consider:

- (14) The train reached the station because the engineer flipped the switch.
- (15) The reason the train reached the station is that the engineer flipped the switch.

McHugh (2023a) a literal analysis of the difference-making idea:

what it means to make a difference is that, when we compare the presence of the difference-maker with its absence, we find a difference
something is true when the difference-maker is present that is not true when it is absent.

McHugh (2023a) a literal analysis of the difference-making idea:

what it means to make a difference is that, when we compare the presence of the difference-maker with its absence, we find a difference something is true when the difference-maker is present that is not true when it is absent.

Analysis of difference-making

A makes a difference to B just in case there is some sentence $D(A, B)$, such that *if A holds, $D(A, B)$ is true but if $\neg A$ holds, $D(\neg A, B)$ is false*

The presence and absence of the cause do not have the same relationship to the effect

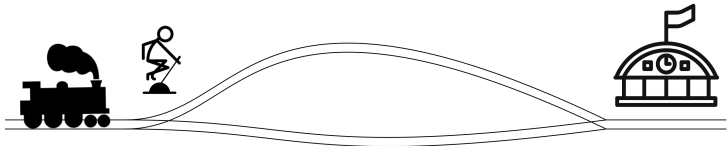


Figure: Hall's (2000) switching scenario.

- The structure of the scenario is entirely symmetric with respect to the cause and its absence
- Whatever relationship holds between pulling the lever and the train reaching the station would also hold between not pulling the lever and the train reaching the station

Violating of difference-making:

- (16) The train reached the station because the engineer flipped the switch.
- (17) The reason the train reached the station is that the engineer flipped the switch.

Plan

- 1 Introduction
- 2 Proposal
- 3 The *because* component
 - Sufficiency
 - Difference-making
 - **Production**
- 4 The because–that principle
- 5 The belief component
 - Reasons are belief-sensitive
 - Hyperintensionality of reasons why
 - Having reasons
 - Belief in *because*
- 6 Conclusion

Suzy and Billy, expert rock-throwers, are engaged in a competition to see who can shatter a target bottle first. They both pick up rocks and throw them at the bottle, but Suzy throws hers before Billy. Consequently Suzy's rock gets there first, shattering the bottle. Since both throws are perfectly accurate, Billy's would have shattered the bottle if Suzy's had not occurred, so the shattering is overdetermined.

(Hall and Paul 2003)

Suzy and Billy, expert rock-throwers, are engaged in a competition to see who can shatter a target bottle first. They both pick up rocks and throw them at the bottle, but Suzy throws hers before Billy. Consequently Suzy's rock gets there first, shattering the bottle. Since both throws are perfectly accurate, Billy's would have shattered the bottle if Suzy's had not occurred, so the shattering is overdetermined.

(Hall and Paul 2003)

- (18)
- a. The bottle broke because Suzy threw her rock at it.
 - b. The bottle broke because Billy threw his rock at it.

Suzy and Billy, expert rock-throwers, are engaged in a competition to see who can shatter a target bottle first. They both pick up rocks and throw them at the bottle, but Suzy throws hers before Billy. Consequently Suzy's rock gets there first, shattering the bottle. Since both throws are perfectly accurate, Billy's would have shattered the bottle if Suzy's had not occurred, so the shattering is overdetermined.

(Hall and Paul 2003)

- (18)
 - a. The bottle broke because Suzy threw her rock at it.
 - b. The bottle broke because Billy threw his rock at it.
- (19)
 - a. The reason the bottle broke is that Suzy threw her rock at it.
 - b. The reason the bottle broke is that Billy threw his rock at it.

Analysing the Billy and Suzy case

Not a difference in sufficiency

- Suzy throwing her rock is sufficient for the bottle to break
- Billy throwing his rock is sufficient for the bottle to break

given that they are both expert rock-throwers, the bottle is guaranteed to break after Billy's throw

Analysing the Billy and Suzy case

Not a difference in sufficiency

- Suzy throwing her rock is sufficient for the bottle to break
- Billy throwing his rock is sufficient for the bottle to break

given that they are both expert rock-throwers, the bottle is guaranteed to break after Billy's throw

Not a difference in counterfactual dependence

- If Suzy hadn't thrown, the bottle would have still broken
- If Billy hadn't thrown, the bottle would have still broken

Analysing the Billy and Suzy case

Not a difference in sufficiency

- Suzy throwing her rock is sufficient for the bottle to break
- Billy throwing his rock is sufficient for the bottle to break

given that they are both expert rock-throwers, the bottle is guaranteed to break after Billy's throw

Not a difference in counterfactual dependence

- If Suzy hadn't thrown, the bottle would have still broken
- If Billy hadn't thrown, the bottle would have still broken

Following ideas by Hall (2004) and Beckers (2016):
for *E because C* to be true, *C* must produce *E*

Possible analyses of production

- Causal processes (Salmon 1984, Dowe 2000) Force transmission (Talmy 1988, Wolff 2007, Copley and Harley 2015)
- Locality and quasi-Newtonian laws (Maudlin 2007)
- Chains of NESS tests (Beckers 2016), McHugh (2023a, 175ff.)

- (20)
- a. The reason everyone now tries to avoid it ... is because it is so difficult. (Ernest Hemingway, *Green Hills of Africa* (1935).)
 - b. \equiv The reason everyone now tries to avoid it ... is that it is so difficult.

Because and *that* are typically not interchangeable:

- (21)
- a. The plan/idea/thought/claim/... is that we should go climbing.
 - b. \neq The plan/idea/thought/claim... is because we should go climbing.

The Because/That Principle. *When that can be replaced salva veritate by because, the statement expresses a because-relation. More precisely, if*

“the X (of/for/... E) is that C”

has the same meaning as

“the X (of/for/... E) is because C”,

then “the X (given by A, of/for/... E) is that C” entails “(according to A) E because C”.

- (22) a. The explanation was because he did not hold a substantive post.¹
b. \equiv The explanation was that he did not hold a substantive post.
- (23) a. His justification was because Hüster had published her negative review of the premiere.²
b. \equiv His justification was that Hüster had published her negative review of the premiere.
- (24) a. Their motivation for teaching through English was because it had been enforced by the school.³
b. \equiv Their motivation for teaching through English was that it had been enforced by the school.

¹Source: UK Employment Tribunal, *Kamanda v. NHS*. https://web.archive.org/web/20190725055125/https://assets.publishing.service.gov.uk/media/5c5da0fce5274a31557ba64f/Mr_S_C_Kamanda_-v-_Royal_Free_Hospital_NHS_Foundation_Trust___Others_-_Case_2207477_2017_-_Reasons.pdf

²Source: *Playbill*, 16 February 2023, <https://web.archive.org/web/20240522210157/https://playbill.com/article/german-choreographer-smears-dog-faces-on-critic-says-he-wants-to-spark-con>

- (25) a. The supplier of the rendering system said the cause was because the product hadn't been applied correctly.⁴
- b. \equiv The supplier of the rendering system said the cause was that the product hadn't been applied correctly.

The cause of E is that C entails C cause E McHugh 2023a

Cause imposes restrictions beyond what *because* requires

Cause requires the chain to move forward in time

⁴Source: UK Financial Ombudsman Service
<https://web.archive.org/web/20240815202540/https://www.financial-ombudsman.org.uk/decision/DRN-4634712.pdf>.

*R is a reason why P just in case 'P because R' is true,
and optionally, the relevant agent believes that 'P because R' is true.*

Plan

- 1 Introduction
- 2 Proposal
- 3 The *because* component
 - Sufficiency
 - Difference-making
 - Production
- 4 The because–that principle
- 5 The belief component**
 - **Reasons are belief-sensitive**
 - Hyperintensionality of reasons why
 - Having reasons
 - Belief in *because*
- 6 Conclusion

Samara enters a bakery looking for a croissant. The baker has been sick and couldn't make any that day. Samara doesn't know this, but simply sees that there are no croissants. She orders a muffin instead.



Samara enters a bakery looking for a croissant. The baker has been sick and couldn't make any that day. Samara doesn't know this, but simply sees that there are no croissants. She orders a muffin instead.



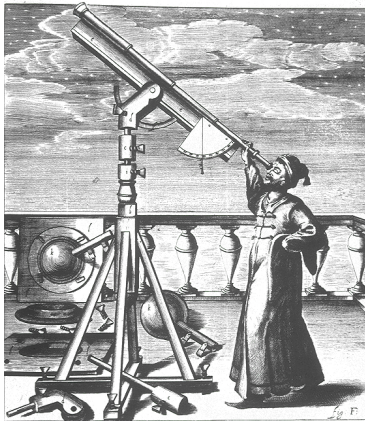
- (26) The reason Samara ordered a muffin was that the baker was sick.
- (27) The reason Samara ordered a muffin was that there were no croissants.

- (28)
- a. The baker being sick caused Samara to order a muffin.
 - b. Samara ordered a muffin because the baker was sick.
 - c. The reason Samara ordered a muffin was that the baker was sick.
 - d. Samara's reason why she ordered a muffin was that the baker was sick.

Plan

- 1 Introduction
- 2 Proposal
- 3 The *because* component
 - Sufficiency
 - Difference-making
 - Production
- 4 The because–that principle
- 5 The belief component**
 - Reasons are belief-sensitive
 - Hyperintensionality of reasons why**
 - Having reasons
 - Belief in *because*
- 6 Conclusion

One morning, the morning star was moving in an irregular way. Galileo to get his telescope to observe it. He believes that the morning star and the evening star are different planets (in fact they are both Venus).



- (29)
- a. The reason Galileo got his telescope was that the morning star was moving in an irregular way.
 - b. The reason Galileo got his telescope was that the evening star was moving in an irregular way.

- (30)
- a. Galileo's reason for getting his telescope was that the morning star was moving in an irregular way.
 - b. Galileo's reason for getting his telescope was that the evening star was moving in an irregular way.

- (31)
- a. The morning star's irregular movement caused Galileo to get his telescope.
 - b. The evening star's irregular movement caused Galileo to get his telescope.
- (32)
- a. Galileo got his telescope because the morning star was moving in an irregular way.
 - b. Galileo got his telescope because the morning star was moving in an irregular way.

- Galileo believes that the **morning star** was moving in an irregular way,
- but does not believe that the **evening star** was moving in an irregular way.

Plan

- 1 Introduction
- 2 Proposal
- 3 The *because* component
 - Sufficiency
 - Difference-making
 - Production
- 4 The because–that principle
- 5 The belief component**
 - Reasons are belief-sensitive
 - Hyperintensionality of reasons why
 - Having reasons**
 - Belief in *because*
- 6 Conclusion

- (33)
- a. She has a reason why she does this.⁵
 - b. He has a reason why he can't see you.⁶
 - c. She has a reason why she needs to play those games.⁷
 - d. Rachel explains her reason why she signed up to the challenge.⁸
 - e. Here's my reason why I'm not a fan of the tradition of "Sweet Caroline" being played at Fenway Park.⁹

⁵Source: <https://web.archive.org/web/20240118075443/https://www.hindustantimes.com/entertainment/hollywood/jennifer-lopez-reveals-the-reason-why-she-always-walks-a-step-behind-ben-afleck.html>.

⁶Source: *thoughtcatalog.com*, 24 January 2018
<https://web.archive.org/web/20231206175450/https://thoughtcatalog.com/holly-riordan/2018/01/texting-you-without-hanging-out-with-you-means-i-dont-want-to-date-you/>.

⁷Source: <https://web.archive.org/web/20240403232735/https://comicbook.com/tv-shows/news/foundation-tv-season-2-demerzel-laura-birn/>.

⁸Source: <https://web.archive.org/web/20240529054024/https://www.kidney.org.uk/blog/rachels-story-tandem-sky-dive-2021>

⁹Source: <https://x.com/ShukriWrights/status/1409996401472413696>

- (34)
- a. # She has a cause why she does this.
 - b. # She has a cause of her doing this.
 - c. # She has a cause for her to do this.
 - d. # She gave her cause why she does this.
 - e. # She gave her cause of her doing this.
 - f. # She gave her cause for her to do this.
- To have something, there must be a relationship between the thing had and the one who has it
 - Since *cause* statements do not supply any subjective component, they do not express any relationship between an agent and the cause

Consequence: when a reason is possessed, the subjective component of the reason is obligatory

For without it, there would be no relation between the reason and the agent that would allow the agent to have the reason

It makes no sense to demand a reason, in this sense, for an event in the world that is unconnected with any intentional subject. I might ask, “Why is the volcano going to erupt?” But what I would be understood to be asking for is an explanation, a reason why the eruption is going to occur, and this would not (at least among most contemporary people) take the form of giving the volcano’s reason for erupting.

(Scanlon 1998, p. 18)

“The fact that the cables had rusted was not a reason *for the bridge* to fall. The bridge does not have reasons.” (Skorupski 2010, p. 53).

“The fact that the cables had rusted was not a reason *for the bridge* to fall. The bridge does not have reasons.” (Skorupski 2010, p. 53).

- (35)
- a. # The volcano’s reason why it erupted was that the tectonic plate below it shifted.
 - b. # The volcano has a reason why it erupted.

Plan

- 1 Introduction
- 2 Proposal
- 3 The *because* component
 - Sufficiency
 - Difference-making
 - Production
- 4 The because–that principle
- 5 The belief component**
 - Reasons are belief-sensitive
 - Hyperintensionality of reasons why
 - Having reasons
 - **Belief in *because***
- 6 Conclusion

Hara (2008, ex. 24–25)

(36) Max left when Sue insulted him.

(37) Max left because Sue insulted him.

Hara (2008, ex. 24–25)

(36) Max left when Sue insulted him.

(37) Max left because Sue insulted him.

(38) Max left because obviously Sue insulted him.

Max left because Sue upset him, and obviously Sue insulted him.

Hara (2008, ex. 24–25)

(36) Max left when Sue insulted him.

(37) Max left because Sue insulted him.

(38) Max left because obviously Sue insulted him.

Max left because Sue upset him, and obviously Sue insulted him.

(39) Max left when obviously Sue insulted him.

(40) Max left after obviously Sue insulted him.

(41) Max left if obviously Sue insulted him.

- (42) Airplanes don't frighten John even though they might crash.
But I think they won't crash.

- (42) Airplanes don't frighten John even though they might crash.
 # But I think they won't crash.

- (43) Airplanes frighten John because they might crash.
 But I think they won't crash. (see Stephenson 2007, fn.17)

- (44) The reason airplanes frighten John is that they might crash.
 But I think they won't crash.

- (42) Airplanes don't frighten John even though they might crash.
 # But I think they won't crash.

- (43) Airplanes frighten John because they might crash.
 But I think they won't crash. (see Stephenson 2007, fn.17)

- (44) The reason airplanes frighten John is that they might crash.
 But I think they won't crash.

Charnavel (2019) introduces a judge parameter into the meaning of *because*

The judge can be the speaker, or speaker and event participant

- (45) The novelist hinted that her next book would be about authors like **herself**.
- (46) #Pottery recovered from the sunken ship suggested that Mediterranean merchants were trading goods like **itself** much earlier than previously thought.

Sells (1987, p. 466):

- (47) Takasi wa Yosiko ga mizu o **zibun** no ue ni kobosita *node* nerete-simatta.
‘Takasi got wet because Yosiko spilled water on him.’

*R is a reason why P just in case 'P because R' is true,
and optionally, the relevant agent believes that 'P because R' is true.*

Evidence for the *because* component:

- Many parallels because reasons and *because* (sufficiency, difference-making, production)
- The *because-that* principle

*R is a reason why P just in case 'P because R' is true,
and optionally, the relevant agent believes that 'P because R' is true.*

Evidence for the *because* component:

- Many parallels because reasons and *because* (sufficiency, difference-making, production)
- The *because-that* principle






Evidence for the *belief* component:

- Reasons are belief sensitive
- Reasons are hyperintensional
- We can have reasons but not causes

Thank you!

ধন্যবাদ







References I

-  Alvarez, Maria (2010). *Kinds of reasons: An essay in the philosophy of action*. Oxford University Press.
-  Barker, Christian (2005). Possessive weak definites.. *Possessives and Beyond: Semantics and Syntax*. GLSA Publications, pp. 89–113.
-  Beckers, Sander (2016). Actual Causation: Definitions and Principles. PhD thesis. KU Leuven. URL:
https://limo.libis.be/primo-explore/fulldisplay?docid=LIRIAS1656621&context=L&vid=Lirias&search_scope=Lirias&tab=default_tab&lang=en_US.
-  Charnavel, Isabelle (2019). Perspectives in causal clauses. *Natural Language & Linguistic Theory* 37, pp. 389–424.
-  Christophersen, Paul (1939). *The Articles: A Study of Their Theory and Use in English*. Einar Munksgaard.






References II

-  Copley, Bridget and Heidi Harley (2015). A force-theoretic framework for event structure. *Linguistics and Philosophy* 38.2, pp. 103–158. DOI: 10.1007/s10988-015-9168-x.
-  Descartes, René (2017). *Meditations on first philosophy*. Trans. by John Cottingham. Cambridge University Press.
-  Dowe, Phil (2000). *Physical causation*. Cambridge University Press.
-  Farkas, Donka F (2002). Specificity distinctions. *Journal of semantics* 19.3, pp. 213–243.
-  Fischer, John Martin and Mark Ravizza (1998). *Responsibility and control: A theory of moral responsibility*. Cambridge university press.
-  Hall, Ned (2000). Causation and the Price of Transitivity. *Journal of Philosophy* 97.4, pp. 198–222. DOI: 10.2307/2678390.
-  — (2004). Two concepts of causation. *Causation and counterfactuals*. Ed. by John Collins, Ned Hall, and Laurie Ann Paul. MIT Press, pp. 225–276.









References III

-  Hall, Ned and Laurie A. Paul (2003). Causation and preemption. *Philosophy of Science Today*, pp. 100–130.
-  Hara, Yurie (2008). Evidentiality of discourse items and because-clauses. *Journal of Semantics* 25.3, pp. 229–268.
-  Heim, Irene (1982). The semantics of definite and indefinite noun phrases. PhD thesis. University of Massachusetts, Amherst.
-  Kamp, Hans (1981). A theory of truth and semantic representation. *Formal Methods in the Study of Language*. Ed. by J.A.G. Groenendijk. Amsterdam Mathematical Centre, pp. 277–322.
-  Löbner, Sebastian (1985). Definites. *Journal of semantics* 4.4, pp. 279–326. DOI: 10.1093/jos/4.4.279.
-  Macaro, Ernesto et al. (2018). A systematic review of English medium instruction in higher education. *Language teaching* 51.1, pp. 36–76.






References IV

-  Maudlin, Tim (2007). *The metaphysics within physics*. Oxford University Press.
-  McHugh, Dean (2022). Aboutness and Modality. *Proceedings of the 23rd Amsterdam Colloquium*, pp. 194–206. DOI: 10.21942/uva.21739718.
-  — (2023a). Causation and Modality: Models and Meanings. PhD thesis. University of Amsterdam. URL: <https://eprints.illc.uva.nl/id/eprint/2243>.
-  — (2023b). Exhaustification in the semantics of *cause* and *because*. *Glossa* 45.1. DOI: 10.16995/glossa.7663.
-  McKenna, Michael (2022). Reasons-responsiveness, Frankfurt examples, and the free will ability. *The Oxford Handbook of Moral Responsibility*. Oxford University Press. Chap. 2, pp. 27–52. DOI: 10.1093/oxfordhb/9780190679309.013.4.

References V

-  Rawlins, Kyle (2005). Possessive definites and the definite article. *UCSC Qualifying Paper*.
-  Roberts, Craig (2003). Uniqueness in definite noun phrases. *Linguistics and philosophy* 26, pp. 287–350.
-  Russell, Bertrand (1905). On denoting. *Mind* 14.56, pp. 479–493.
-  Salmon, Wesley C (1984). *Scientific explanation and the causal structure of the world*. Princeton University Press.
-  Scanlon, Thomas M (1998). *What we owe to each other*. Harvard University Press.
-  Schwarz, Florian (2009). Two types of definites in natural language. PhD thesis. University of Massachusetts Amherst.
-  Sells, Peter (1987). Aspects of logophoricity. *Linguistic inquiry* 18.3, pp. 445–479.
-  Skorupski, John (2010). *The domain of reasons*. Oxford University Press.

References VI

-  Stephenson, Tamina (2007). Judge dependence, epistemic modals, and predicates of personal taste. *Linguistics and philosophy* 30.4, pp. 487–525. DOI: 10.1007/s10988-008-9023-4.
-  Strawson, Peter F (1950). On referring. *Mind* 59.235, pp. 320–344. DOI: 10.1093/mind/LIX.235.320.
-  Talmy, Leonard (1988). Force Dynamics in Language and Cognition. *Cognitive Science* 12.1, pp. 49–100. DOI: 10.1207/s15516709cog1201_2.
-  Walters, Lee and J Robert G Williams (2013). An argument for conjunction conditionalization. *The Review of Symbolic Logic* 6.4, pp. 573–588. DOI: 10.1017/S1755020313000191.
-  Wolff, Phillip (2007). Representing causation. *Journal of experimental psychology: General* 136.1, p. 82. DOI: 10.1037/0096-3445.136.1.82.