

Intentionally with would-be preventers

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11 May 2022

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2021 PhD dissertation: *Letting in Romance*
Paris 8/Univ. zu Köln

What does it mean to do something *intentionally*?

Knobe Effect (Knobe 2003) / Side-effect Effect



(1) a. Did the CEO intentionally *help* the environment? “No”

b. Did the CEO intentionally *harm* the environment? “Yes”

What ingredients matter for this effect?

Norms matter

- The only difference between these conditions seems to be that is good to help the environment and bad to harm the environment.
- Judgments about *intentionally* are affected by moral judgments (Knobe 2003, ...)
- (Knobe & Petit 2009: not just *intentionally* but other “pro-attitudes”)
- ... much discussion in the literature elided here!

- norms
- would-be prevention

Would-be prevention (McGrath 2005, Raffy 2021) matters

(2) a. ??Le PDG a laissé les employés améliorer l'environnement.
 the chairman AUX let the employees better the-environment
 'The chairman let the employees help the environment.'

b. Le PDG a laissé les employés nuire à l'environnement.
 the chairman AUX let the employees harm to the-environment
 'The chairman let the employees harm the environment.'

(3) a. My wheelchair lets me get out and about.

Raffy 2021

b. ??#Mon fauteuil roulant me laisse me balader.
 my chair rolling REFL let REFL stroll.INF
 'My wheelchair lets me get out and about.'

- norms
- would-be prevention
 - indeterminacy
 - autonomy

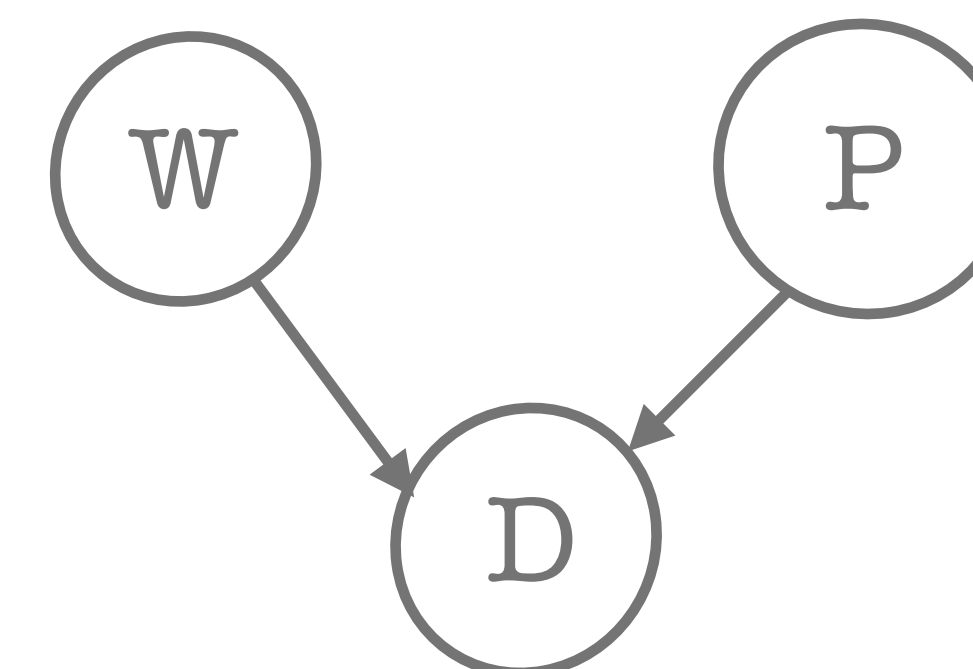
Ingredients for would-be prevention

- Animate would-be preventer =? entity with free will
 - Indeterminacy
 - Autonomy

Causal models

- norms
- would-be prevention
 - indeterminacy
 - autonomy

- Causal models represent the structure that causation gives to our conception of the world.
- Each node is a variable that can have different values.
- An arrow from A to B represents that the value of B is dependent on, or “listens to” the value of A and that this dependency is causal. Absence of an arrow means the two variables are causally independent of each other.
- The dependencies are represented by functions.
- A gentle introduction: Pearl & Mackenzie 2018
- Indeterminacy and autonomy are easy to model



W: whether there is water in the sink
D: whether the water drains
P: whether there is a plug in the sink

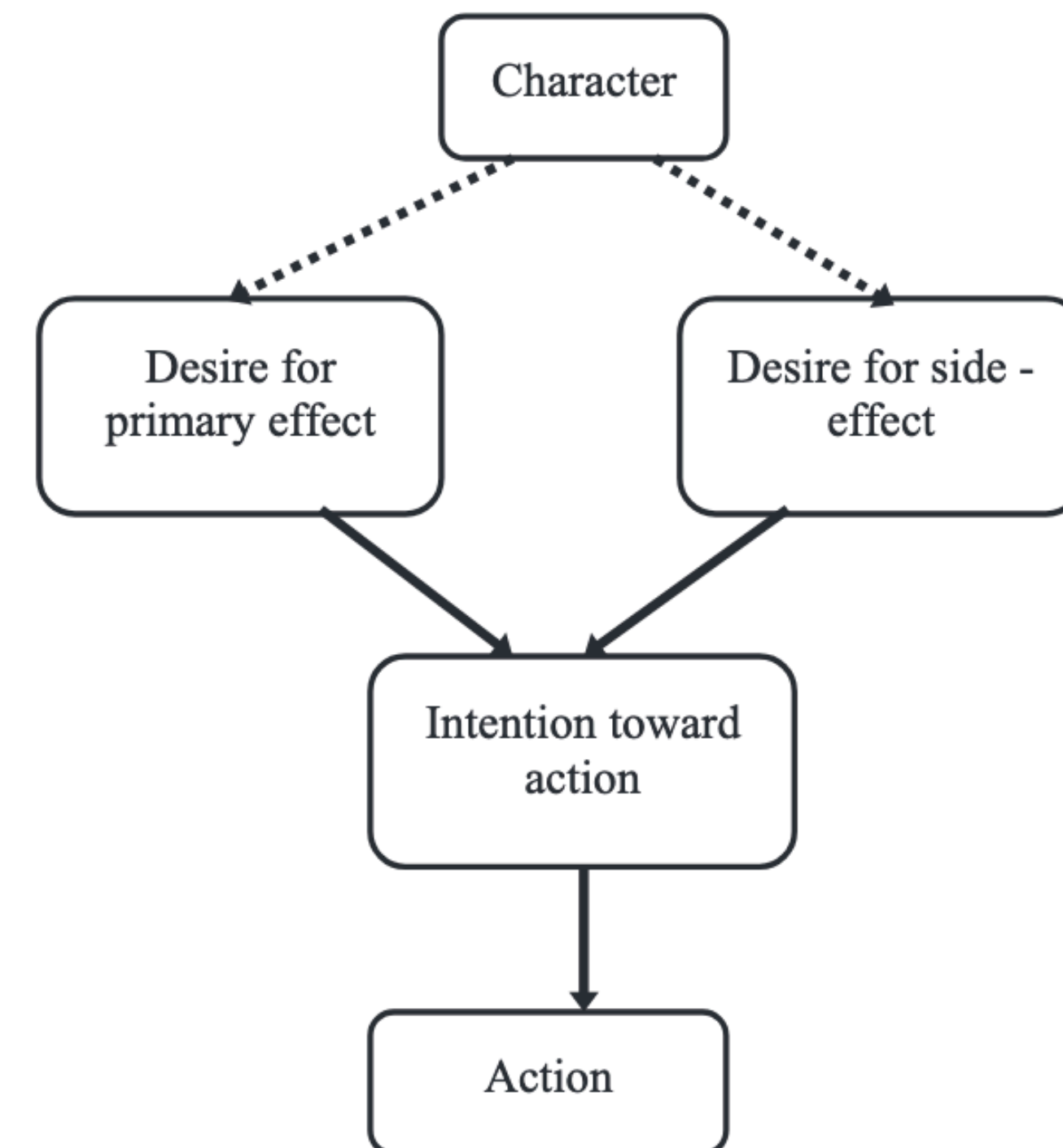
W	P	D
1	1	0
1	0	1
0	1	0
0	0	0

- norms
- would-be prevention
 - indeterminacy
 - autonomy

A causal model for the Knobe / side-effect effect

- Sloman et al. 2012 (drawing on Malle and Knobe 1997)

They use Bayesian reasoning on this model, modeling judgments of the intentionality of an action to achieve an outcome as the probability that the outcome was desired given what is known at the time of judgment.



But! Compositionality matters (to semanticists, anyway)

- norms
- would-be prevention
 - indeterminacy
 - autonomy
- compositionality

- We need to say what *intentionally* means.
- Compositionality: The meaning of x *intentionally* p should come from the meanings of x , *intentionally*, and p
- These meanings relate to truth values, not probabilities.
- So we need to be able to explain the meaning of x *intentionally* p without recourse to Bayesian reasoning.

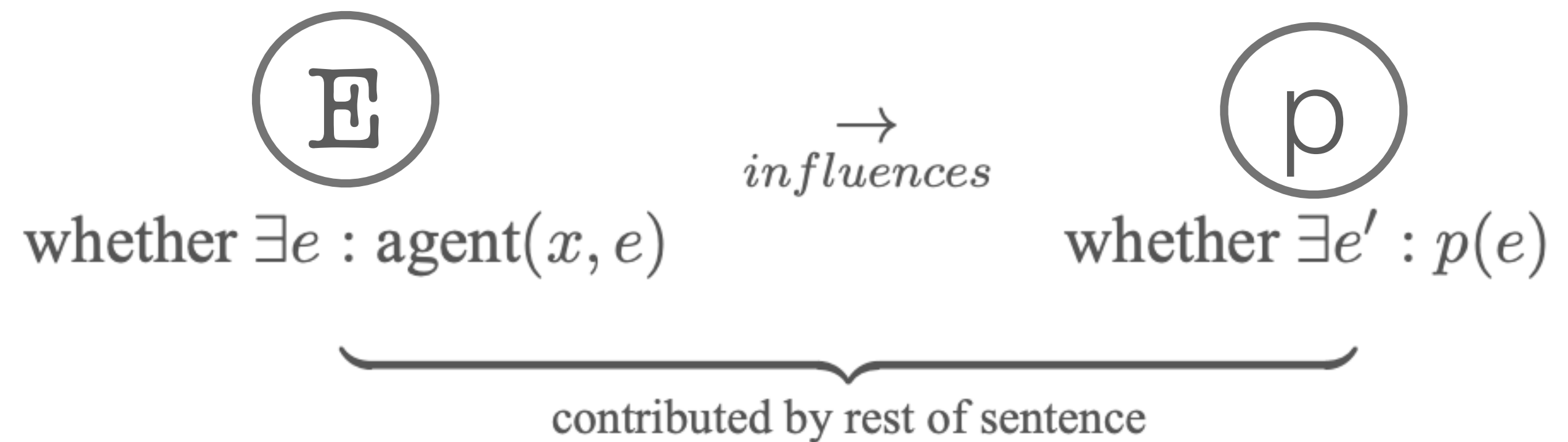
Compositional meaning for *intentionally*

- norms
- would-be prevention
 - indeterminacy
 - autonomy
- compositionality



at-issue meaning

(+ $D@p = 1$)



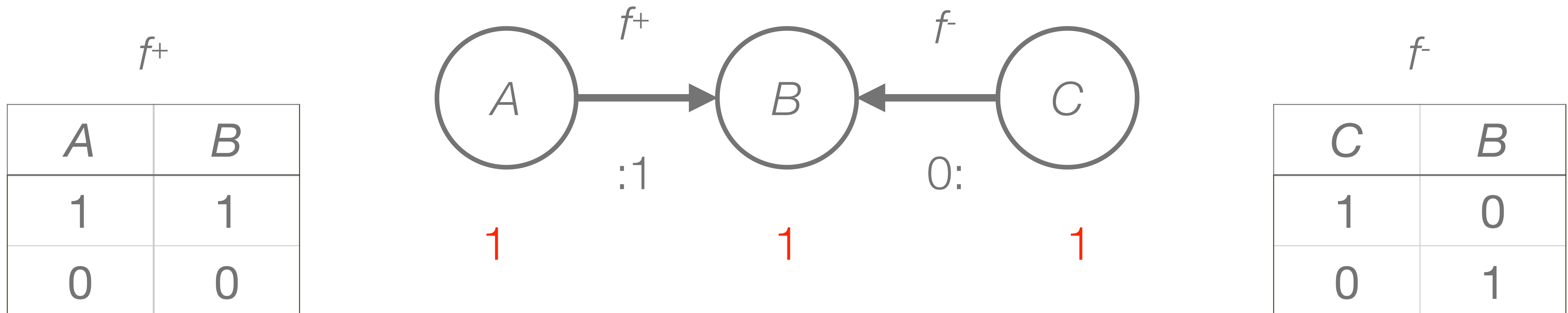
not-at-issue meaning

(+ agent = would-be preventer)

A different kind of causal model: Indeterminacy through **competition**

- norms
- would-be prevention
 - indeterminacy
 - autonomy
- compositionality

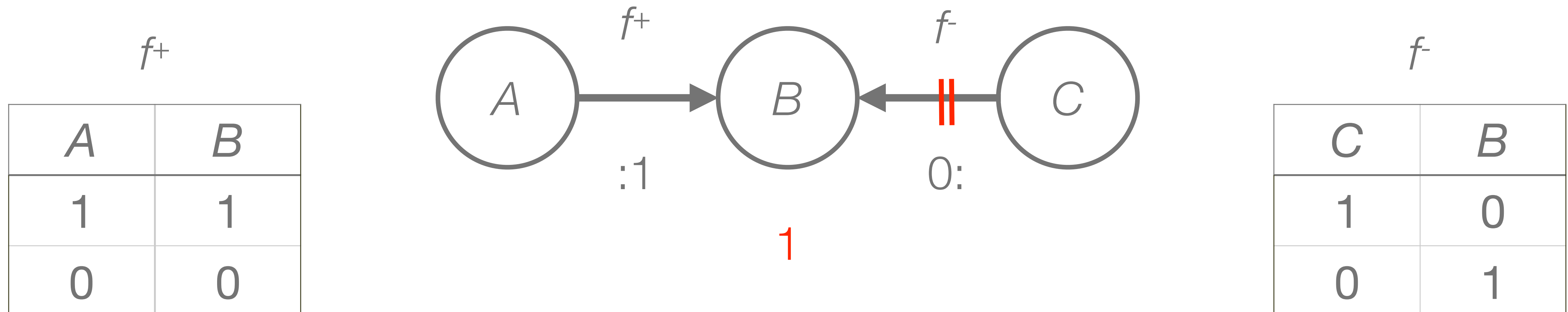
- What if each arrow were merely a defeasible “proposal”, with its own (*local*) function? This makes causal models a bit like force dynamic diagrams.
- Each arrow function needs to obey *local listening*
- Arrow functions *compete*, if need be, to determine the value of the node their arrows point at



A different kind of causal model: Indeterminacy through **competition**

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-

Possible values

- Truth values 0 and 1
- A third value, only for nodes that represent desires: *indifferent*
- Disjunctive values, e.g. “0 v 1” or “0 v indifferent v 1” : independence

Nodes

- Events/states of various kinds
- Desires
- Norms: *ideals* and *rules*

- norms
- would-be prevention
 - indeterminacy
 - autonomy
- compositionality

Functions for ideals and rules

- norms
- would-be prevention
 - indeterminacy
 - autonomy
- compositionality

- How do *ideals* and *rules* influence one's desire for p ?

f_{ideal} :

$p = \text{ideal}$	$\text{desire } p$
1	1 v indiff
0	0 v indiff v 1

f_{rule} :

$p = \text{rule}$	$\text{desire } p$
1	1
0	0 v indiff v 1

Functions for ideals and rules

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also f_{rule} :

$\sim p = \text{rule}$	$\text{desire } \sim p$
1	1
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Functions for ideals and rules

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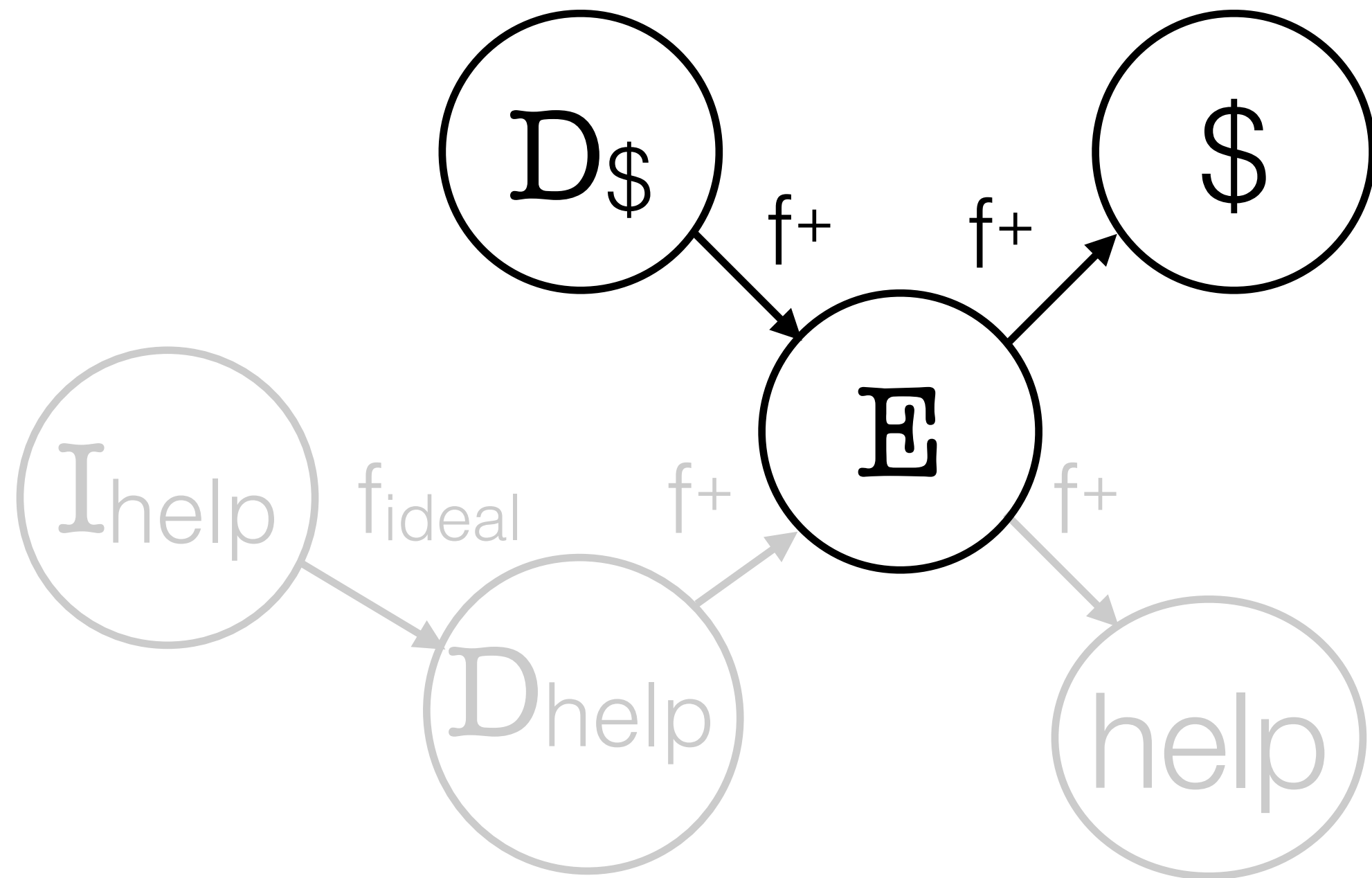
$p = \text{ideal}$	$\text{desire } p$
1	1 v indiff
0	0 v indiff v 1

also f_{rule} :

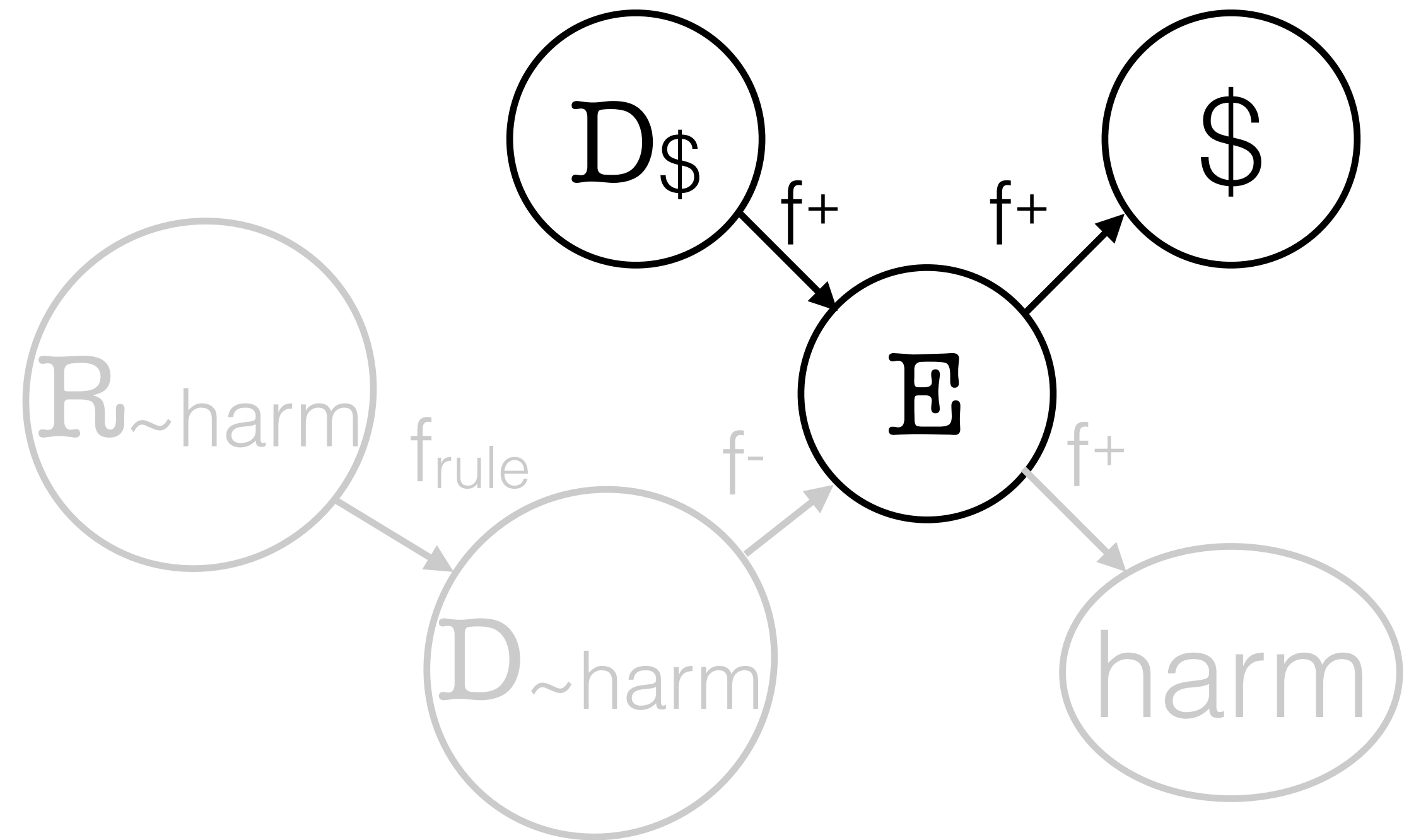
$\sim p = \text{rule}$	$\text{desire } \sim p$
1	1
0	0 v indiff v 1

Putting it all together

(1) a. Did the CEO intentionally *help* the environment? “No”



b. Did the CEO intentionally *harm* the environment? “Yes”

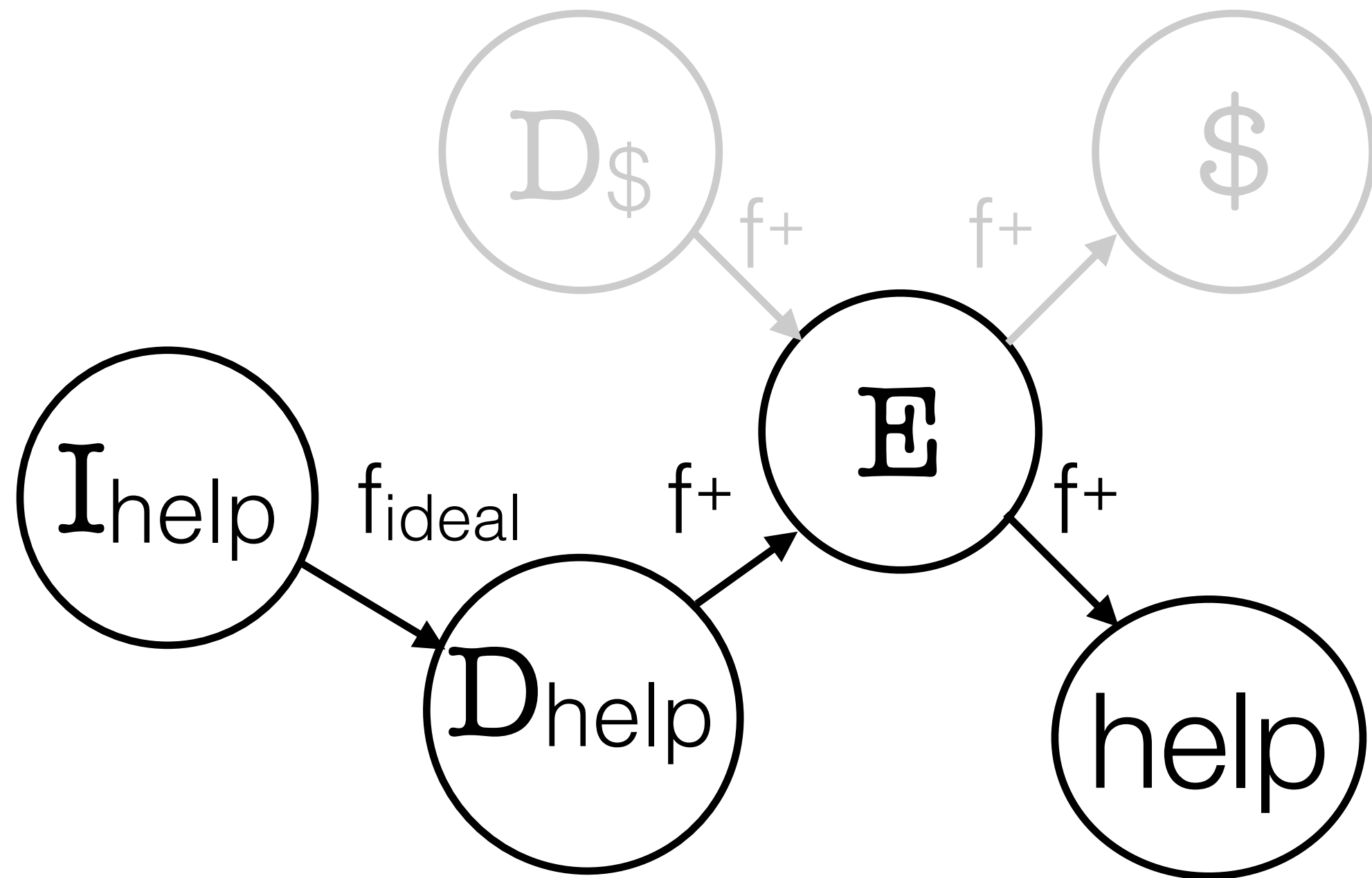


D_{\$}: whether the CEO desires to make \$

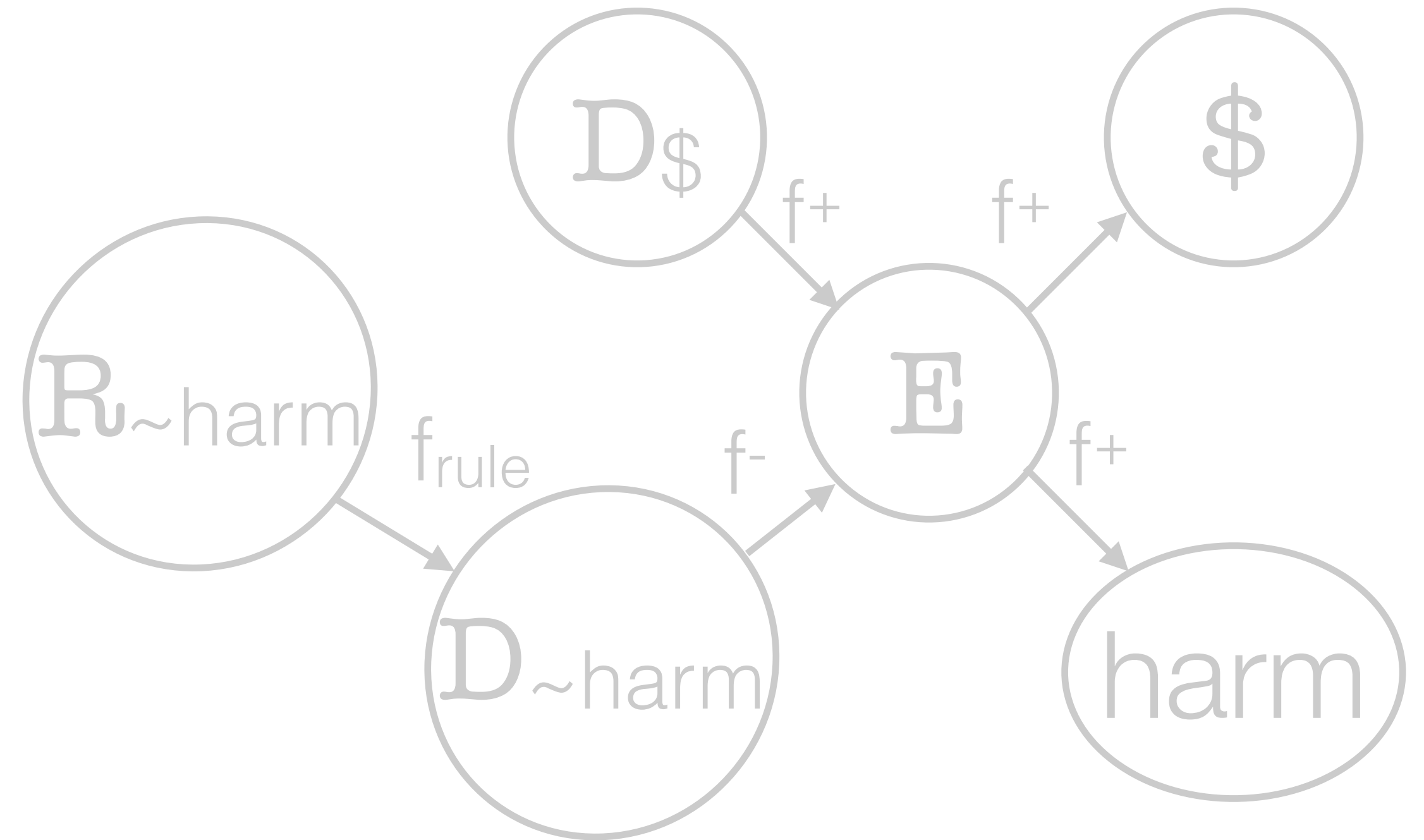
E: whether the event occurs

\$: whether the event makes \$

(1) a. Did the CEO intentionally *help* the environment? “No”



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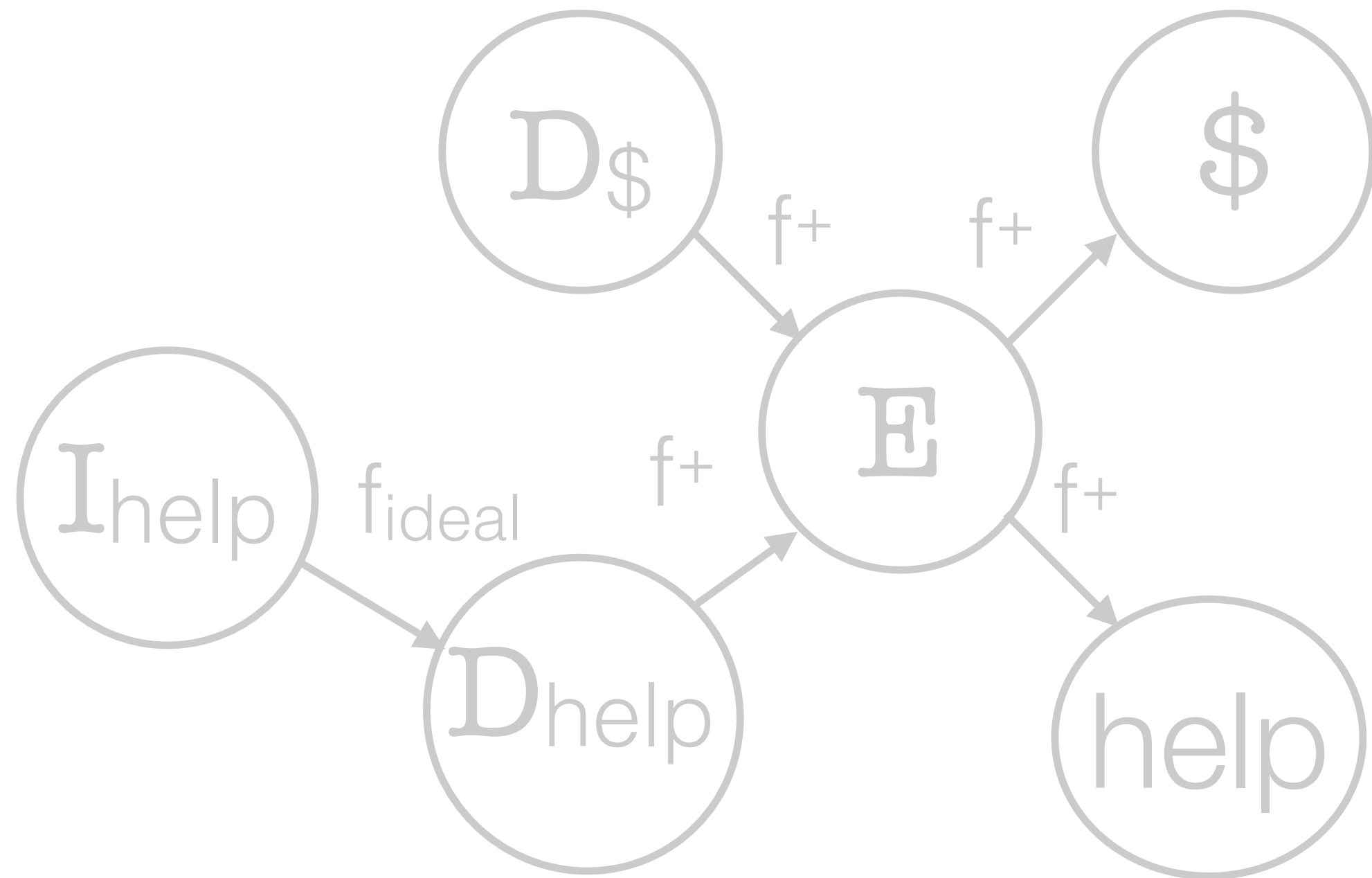
I_{help} : whether helping is the ideal

D_{help} : whether the CEO desires to help

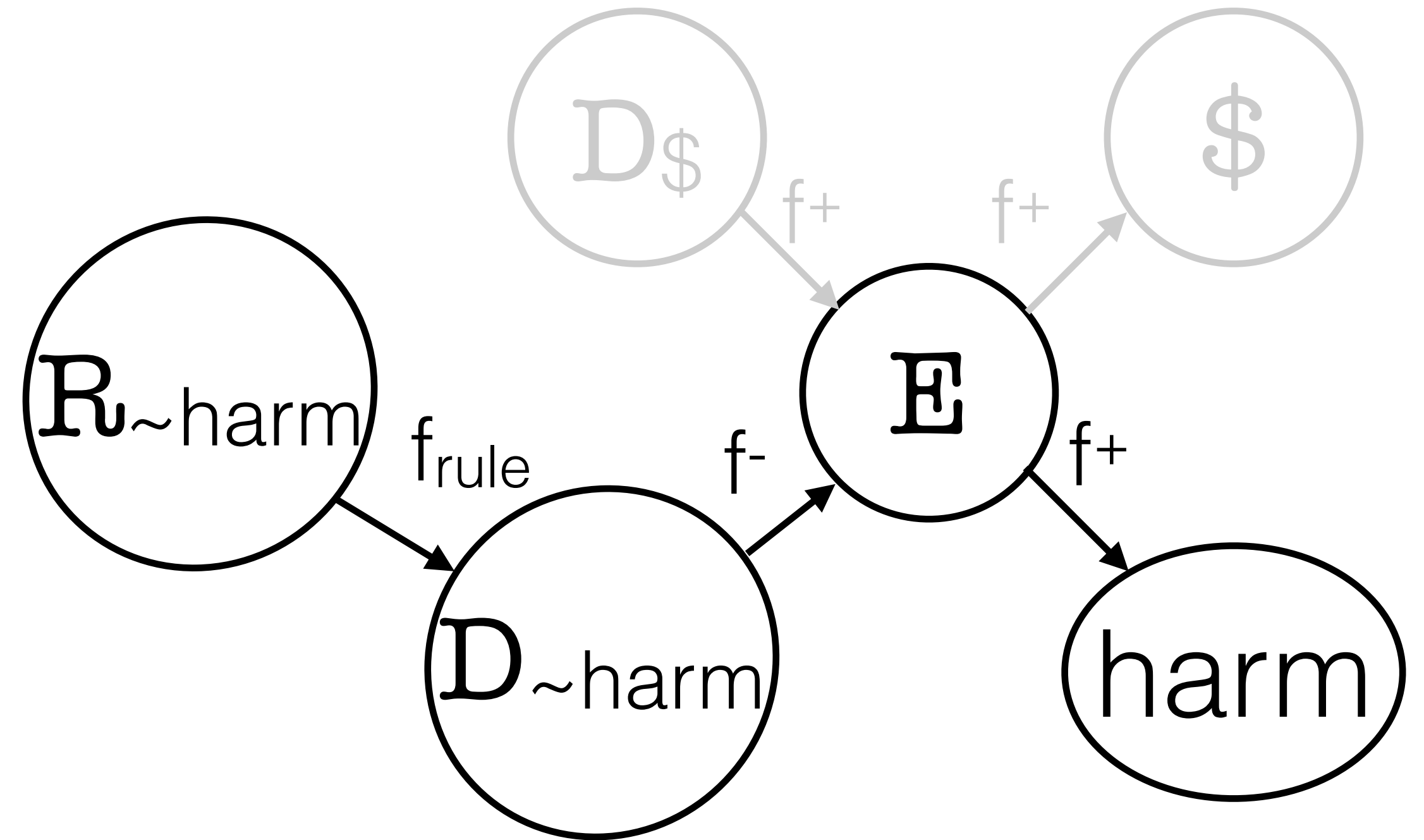
E : whether the event occurs

help : whether the event helps

(1) a. Did the CEO intentionally *help* the environment? “No”

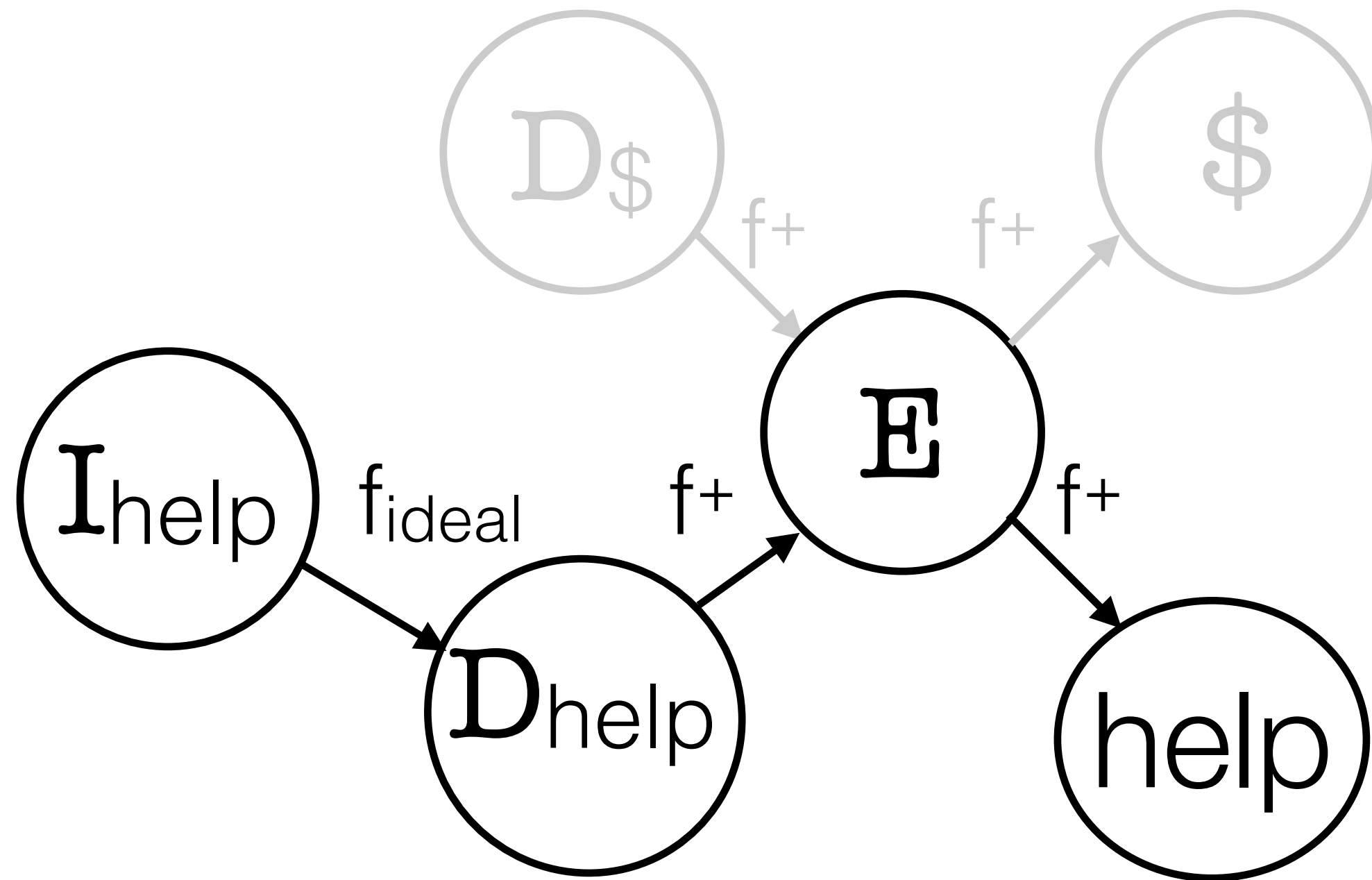


b. Did the CEO intentionally *harm* the environment? “Yes”

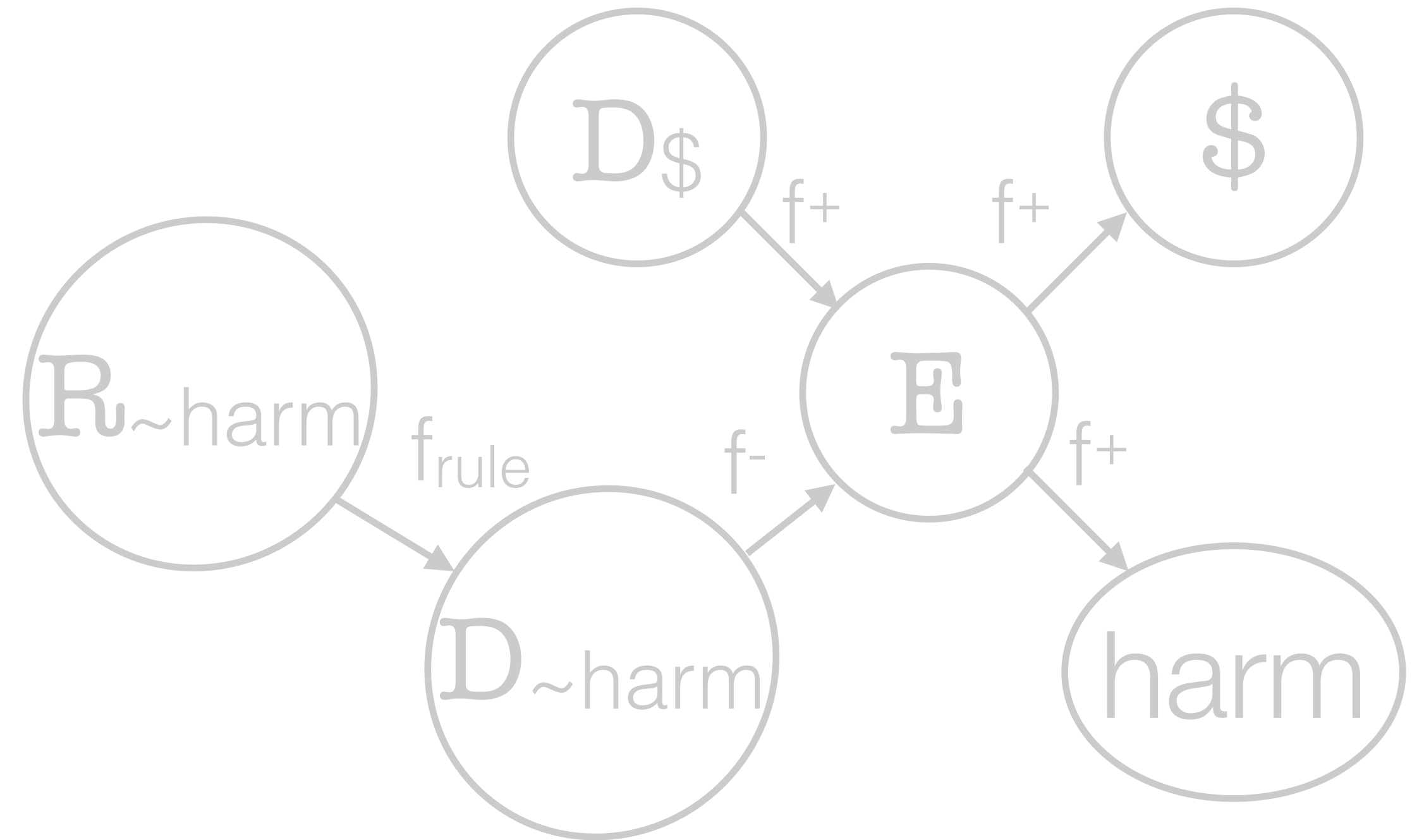


$R_{\sim\text{harm}}$: whether not harming is the rule
 $D_{\sim\text{harm}}$: whether the CEO desires to not harm
 E : whether the event occurs
 harm : whether the event harms

(1) a. Did the CEO intentionally *help* the environment? “No”



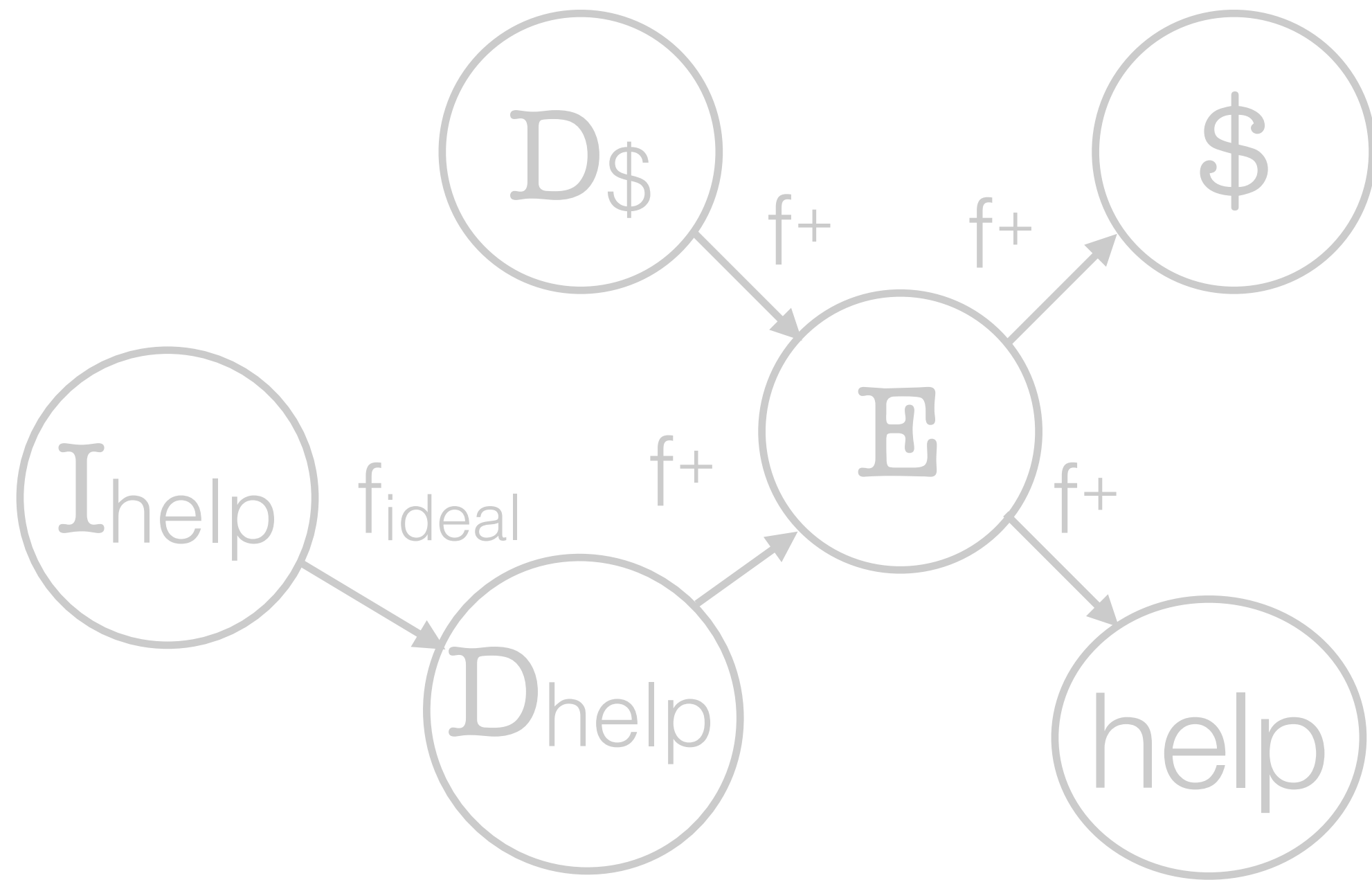
b. Did the CEO intentionally *harm* the environment? “Yes”



f_{ideal} :

	I_{help}	D_{help}
1	1	1 v indiff
0	0	0 v indiff v 1

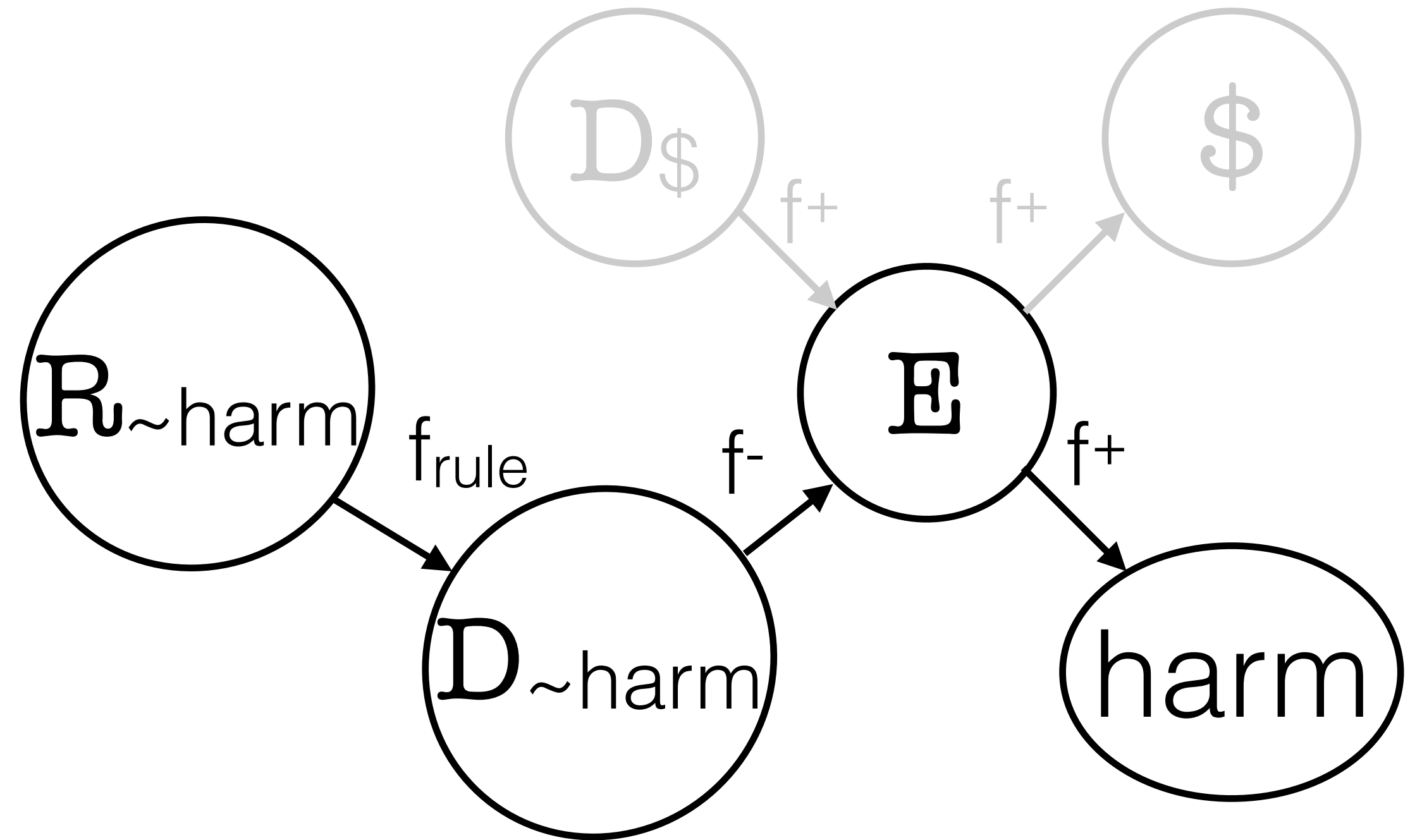
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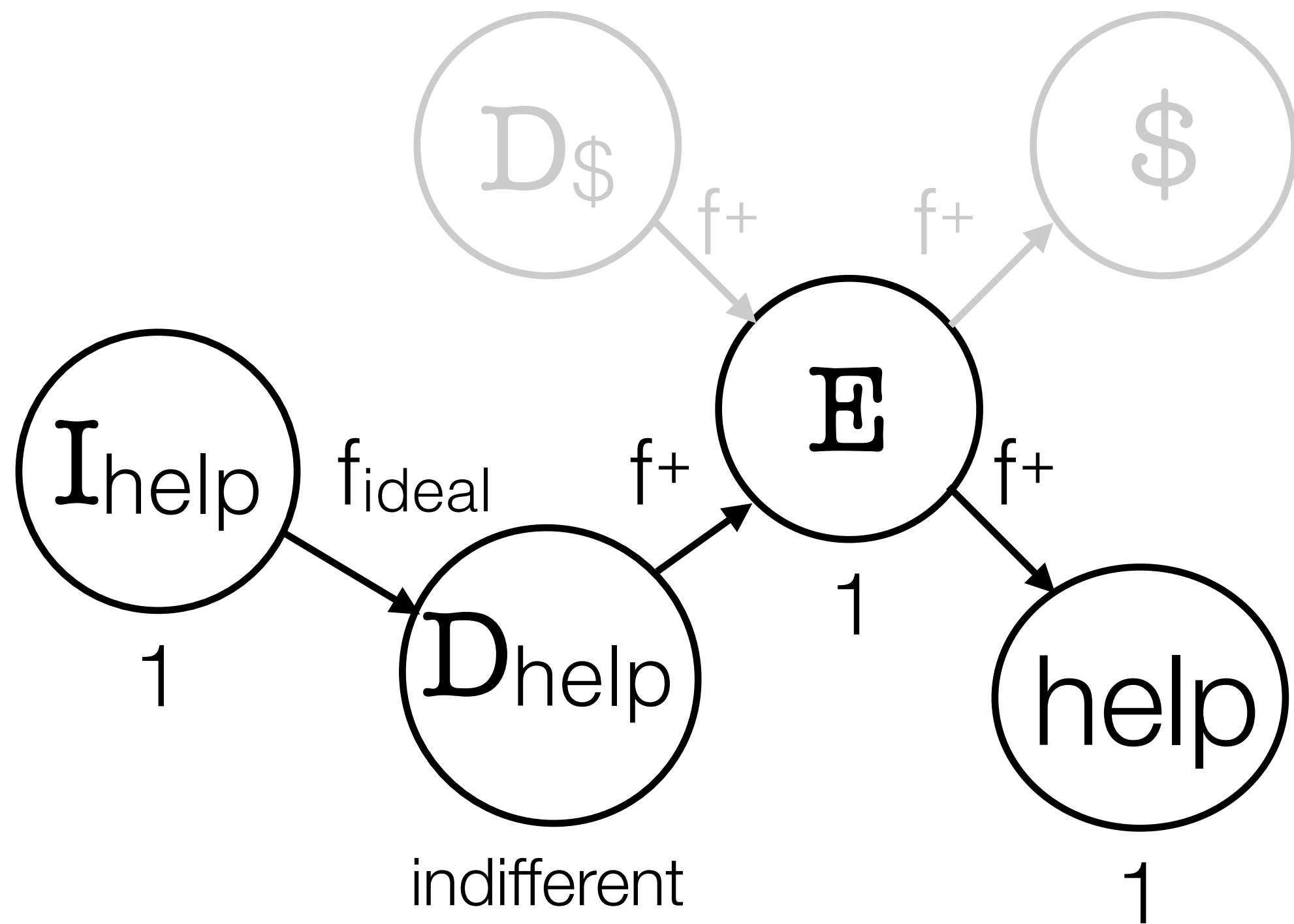
b. Did the CEO intentionally *harm* the environment? “Yes”



f_{rule} :

$R_{\sim harm}$	D_{help}
1	1
0	0 v indiff v 1

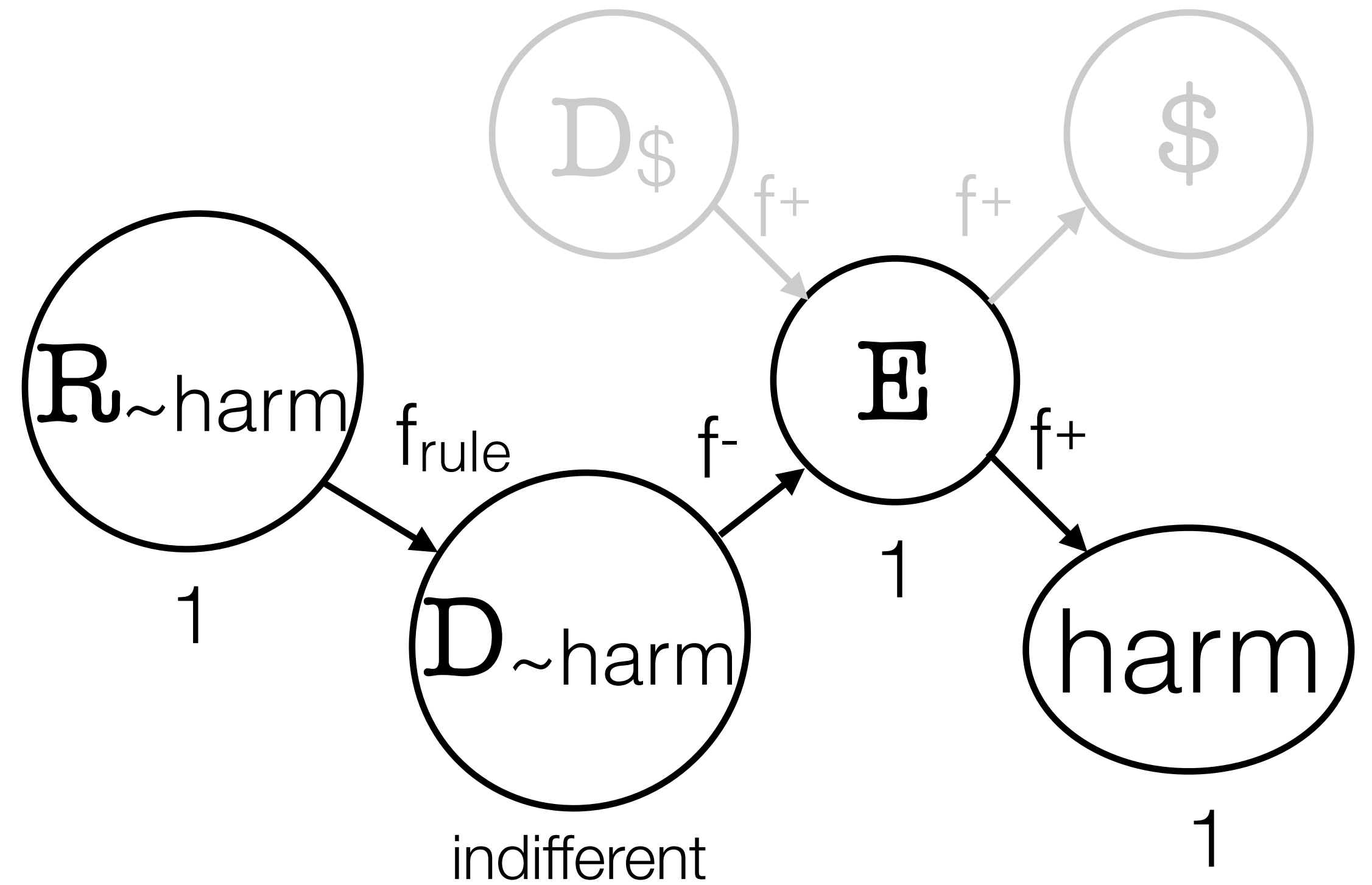
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f_{ideal} :

I_{help}	D_{help}
1	1 v indiff
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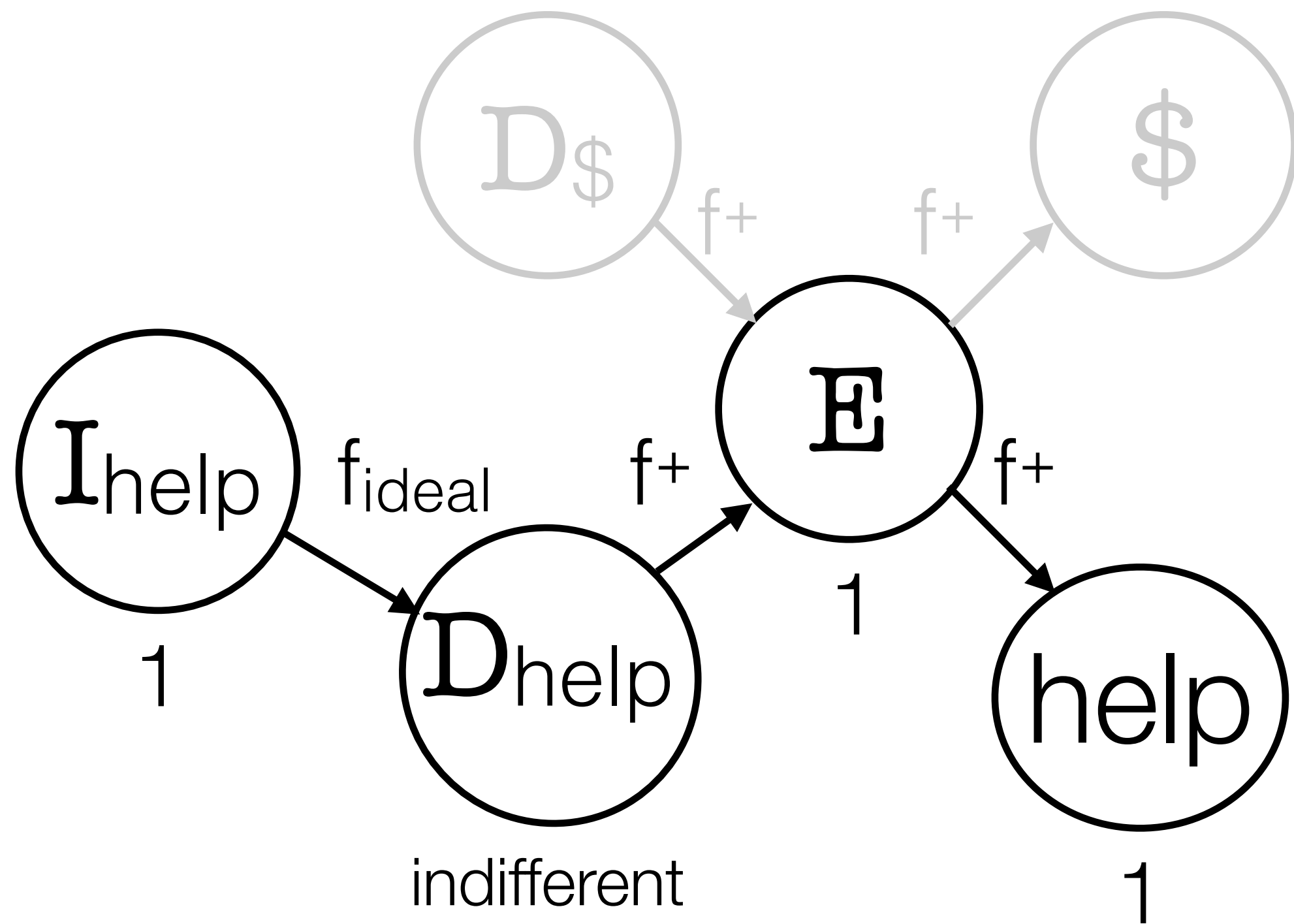
b. Did the CEO intentionally *harm* the environment? “Yes”



f_{rule} :

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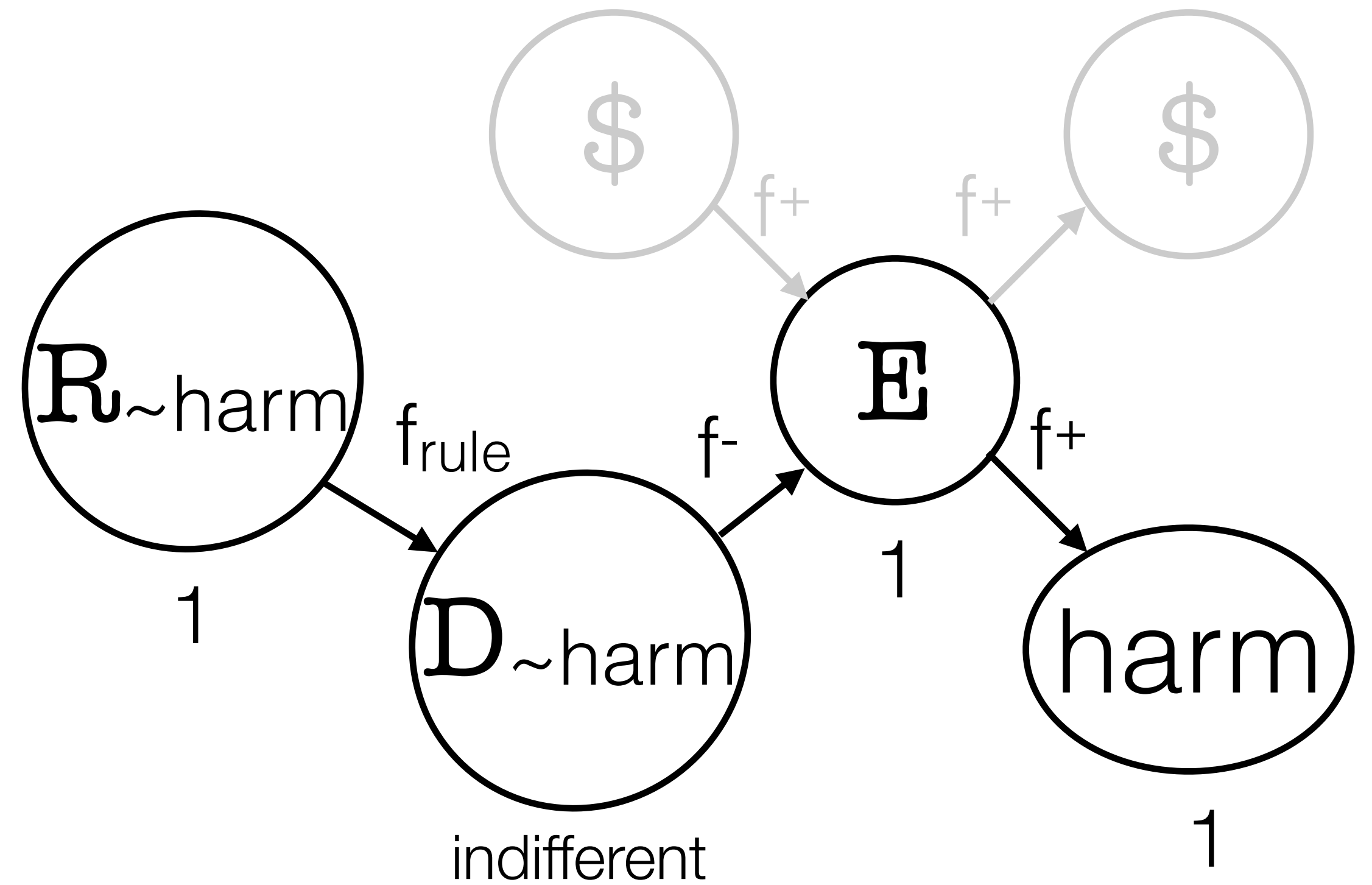
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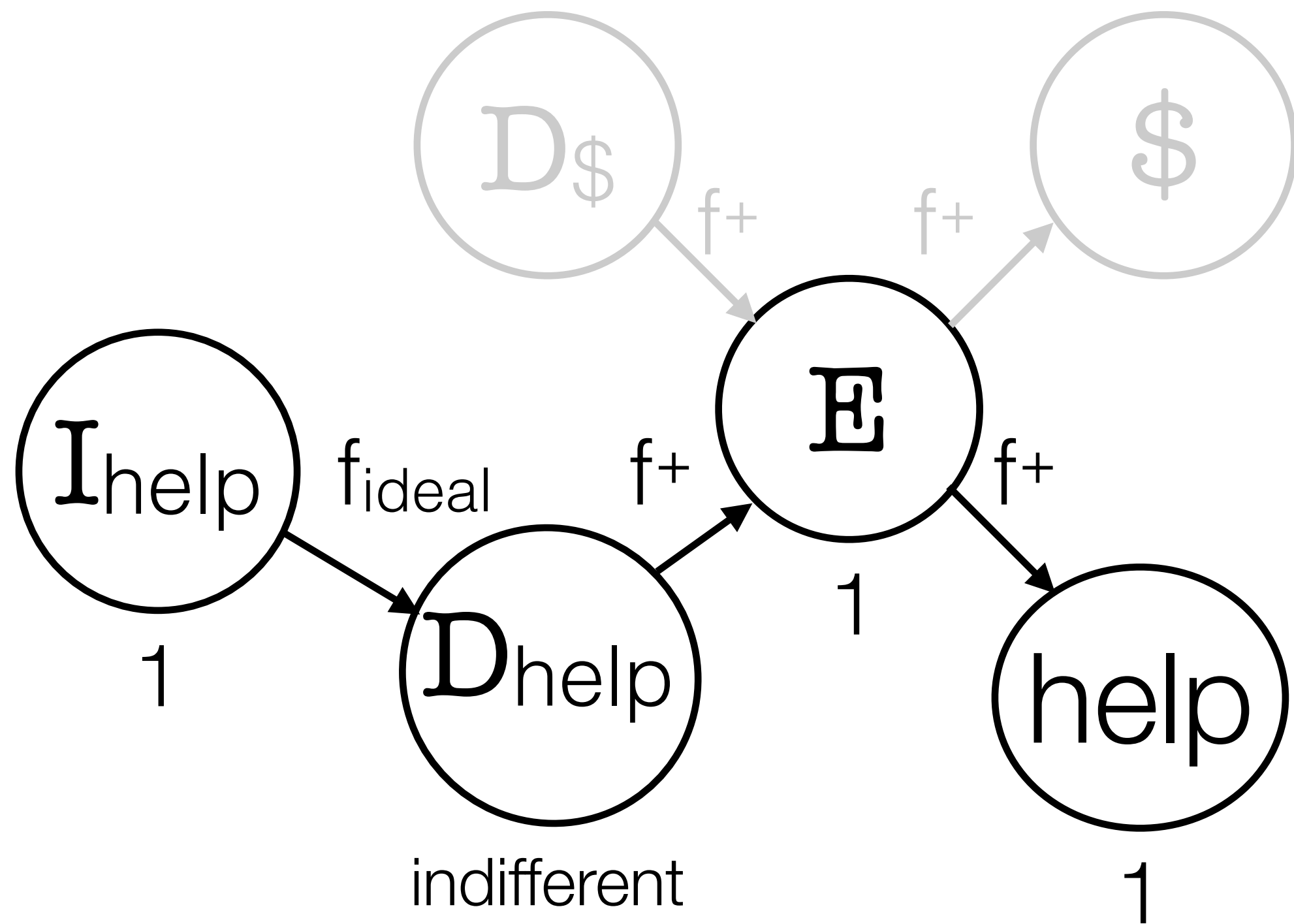
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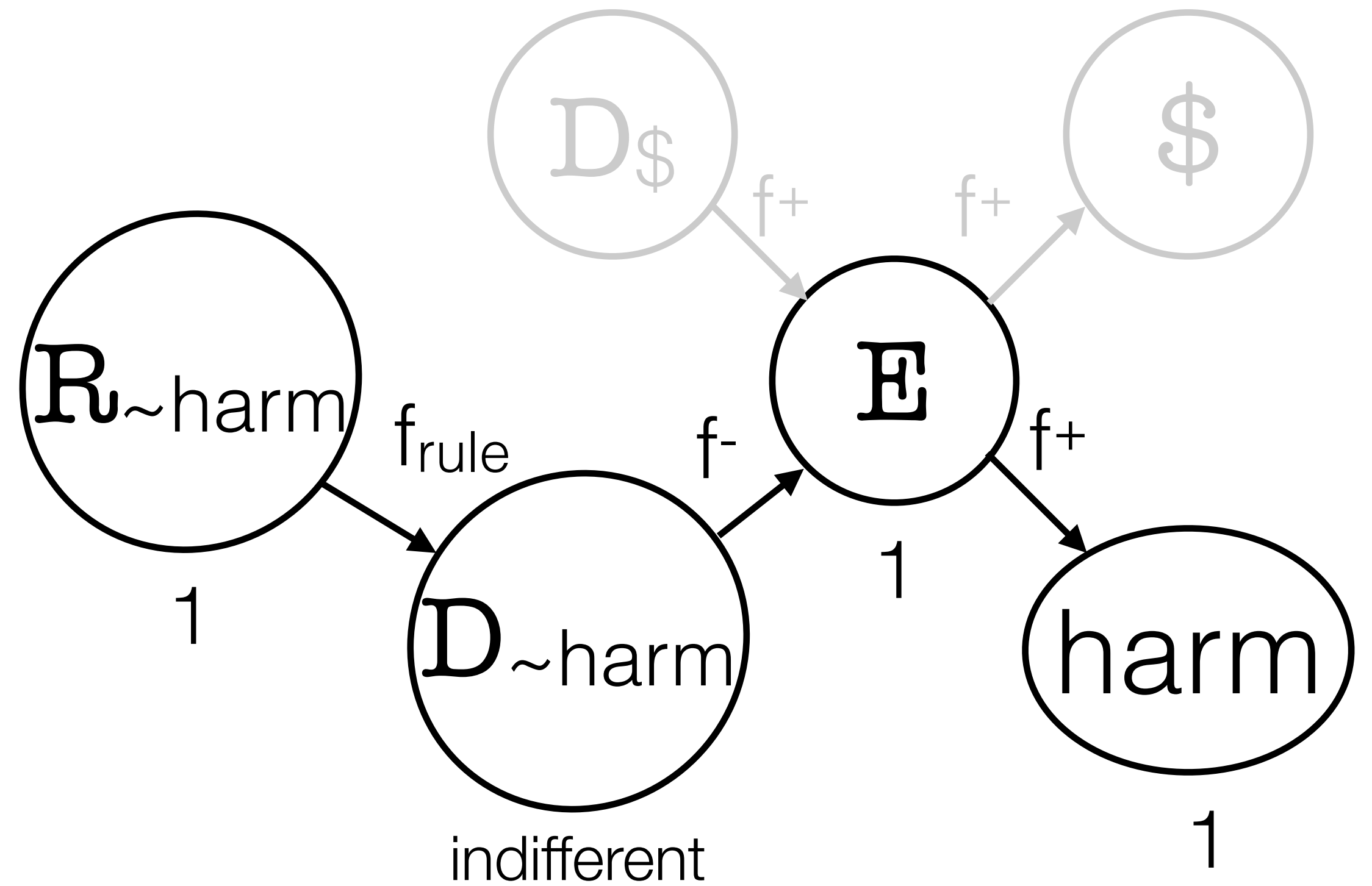


f_{ideal} :

I_{help}	D_{help}
1	1 v indiff
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all is well!

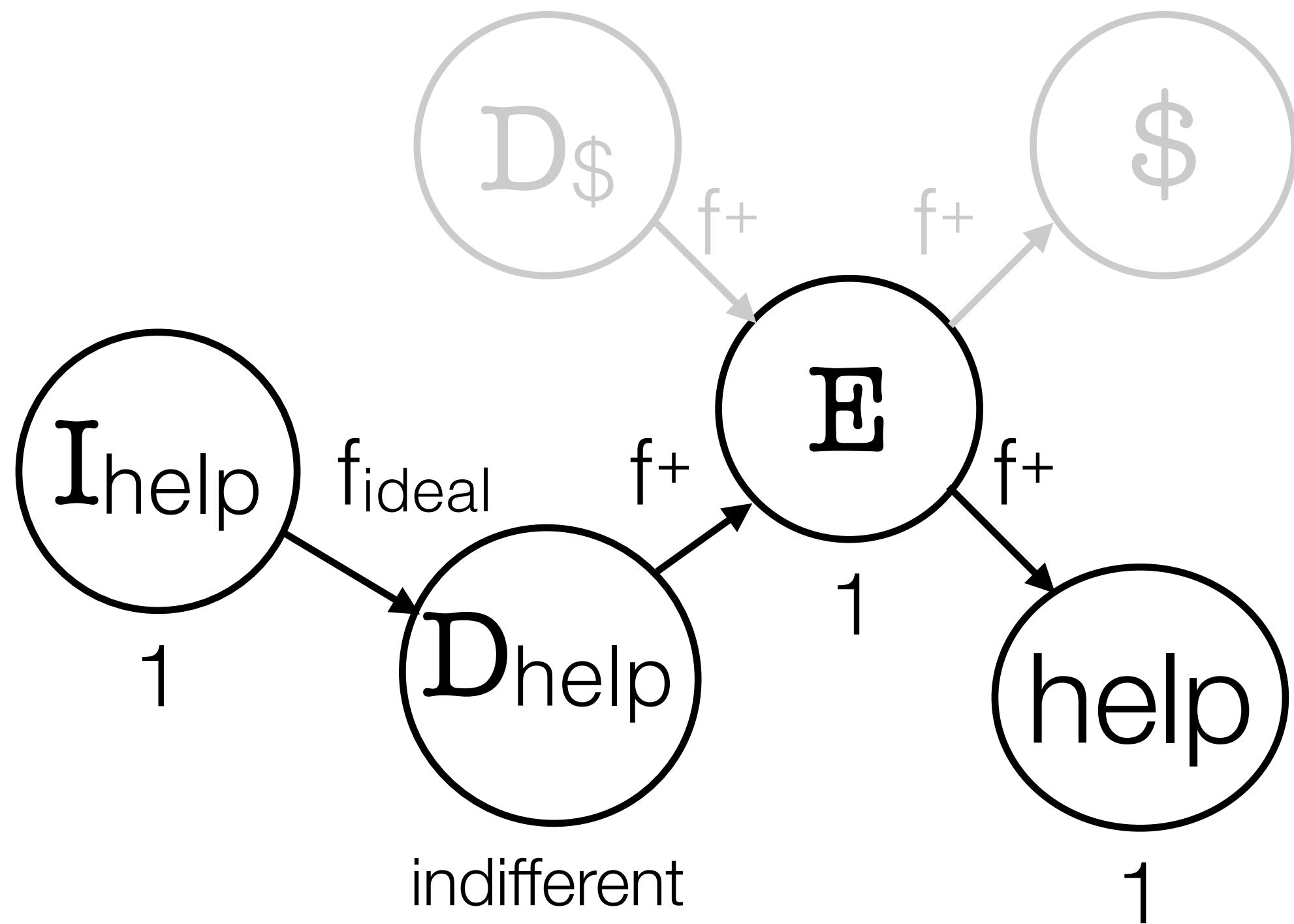
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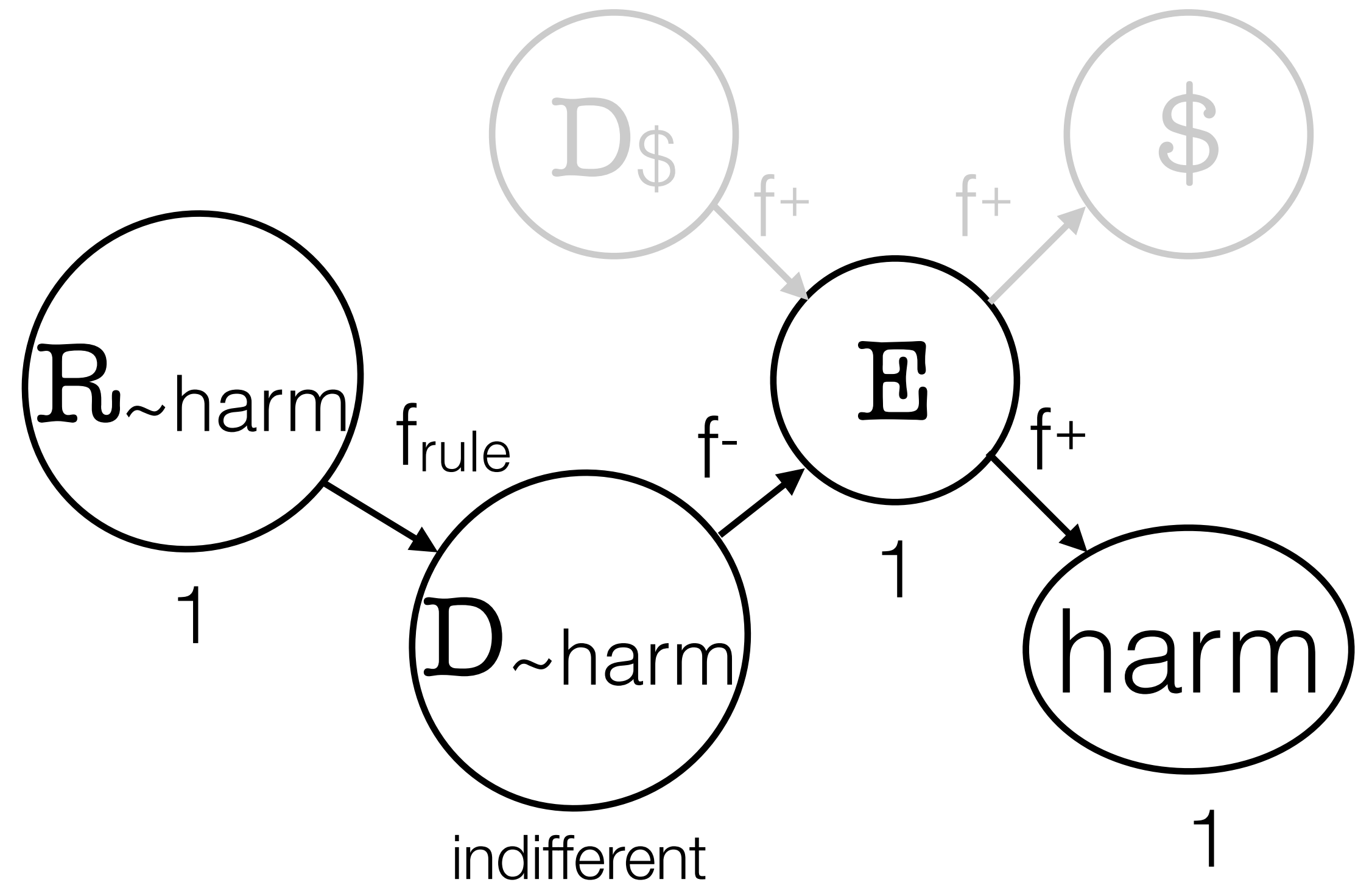
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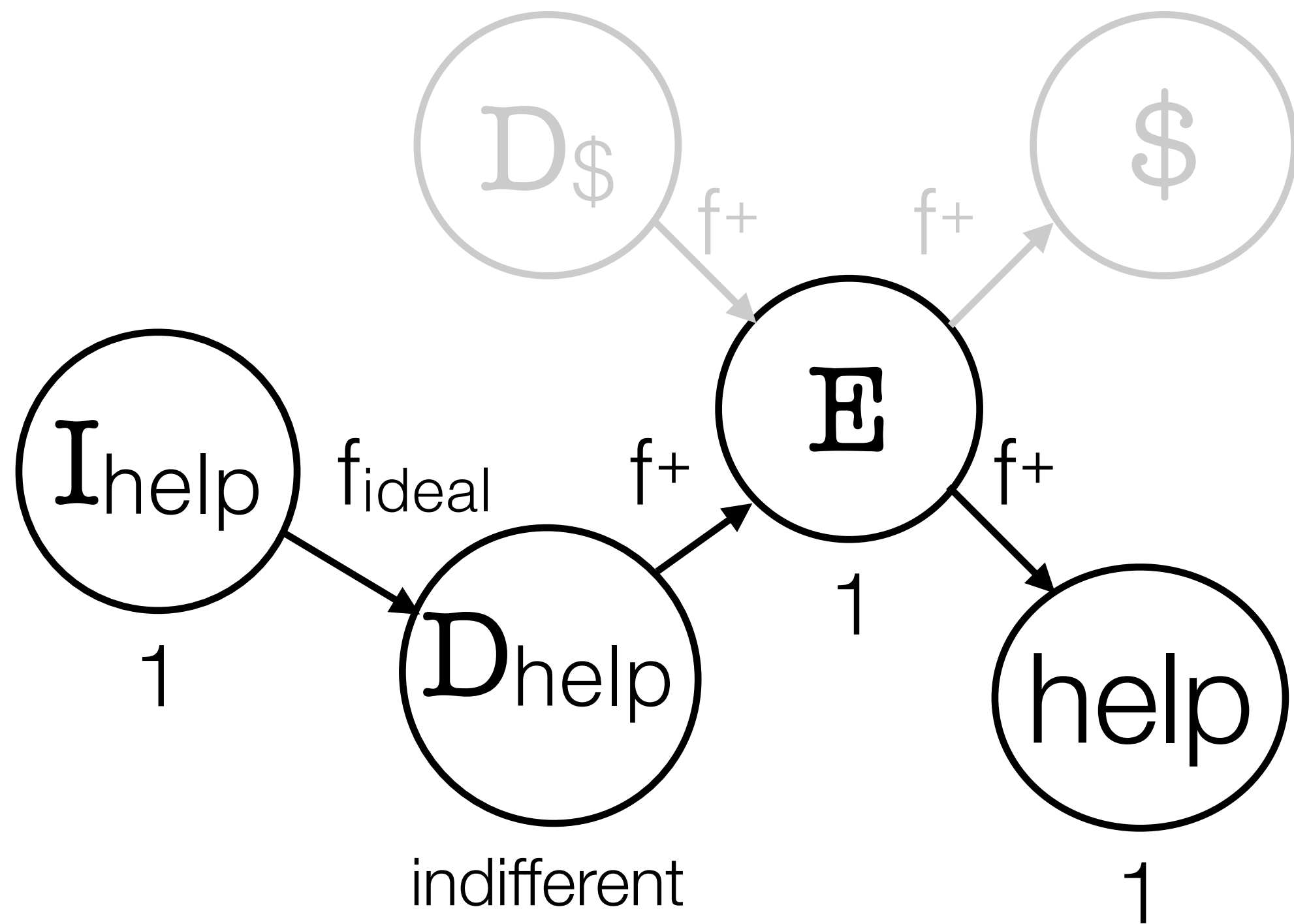
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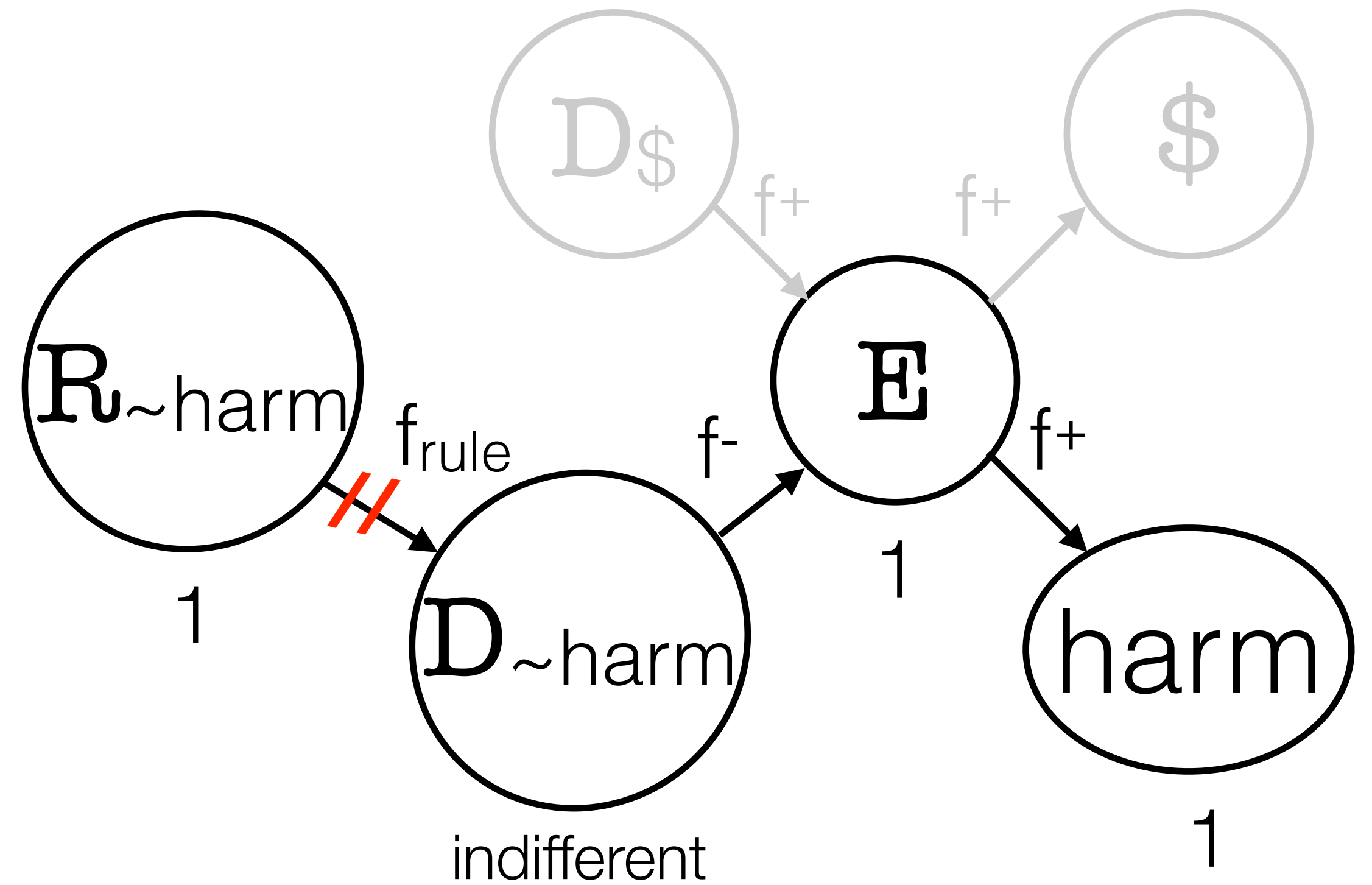


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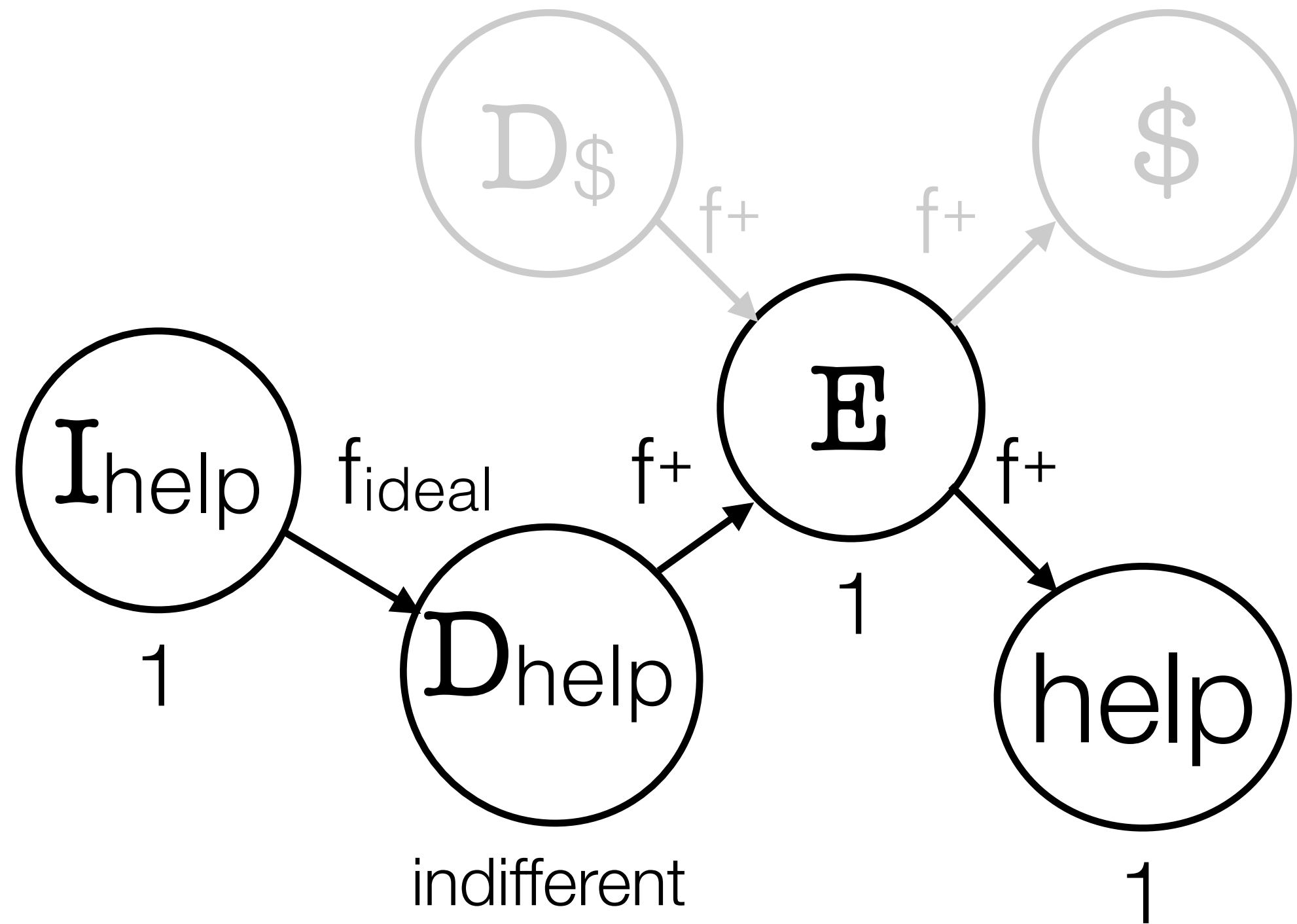


f_{rule} :

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all is not well!

(1) a. Did the CEO intentionally *help* the environment? “No”

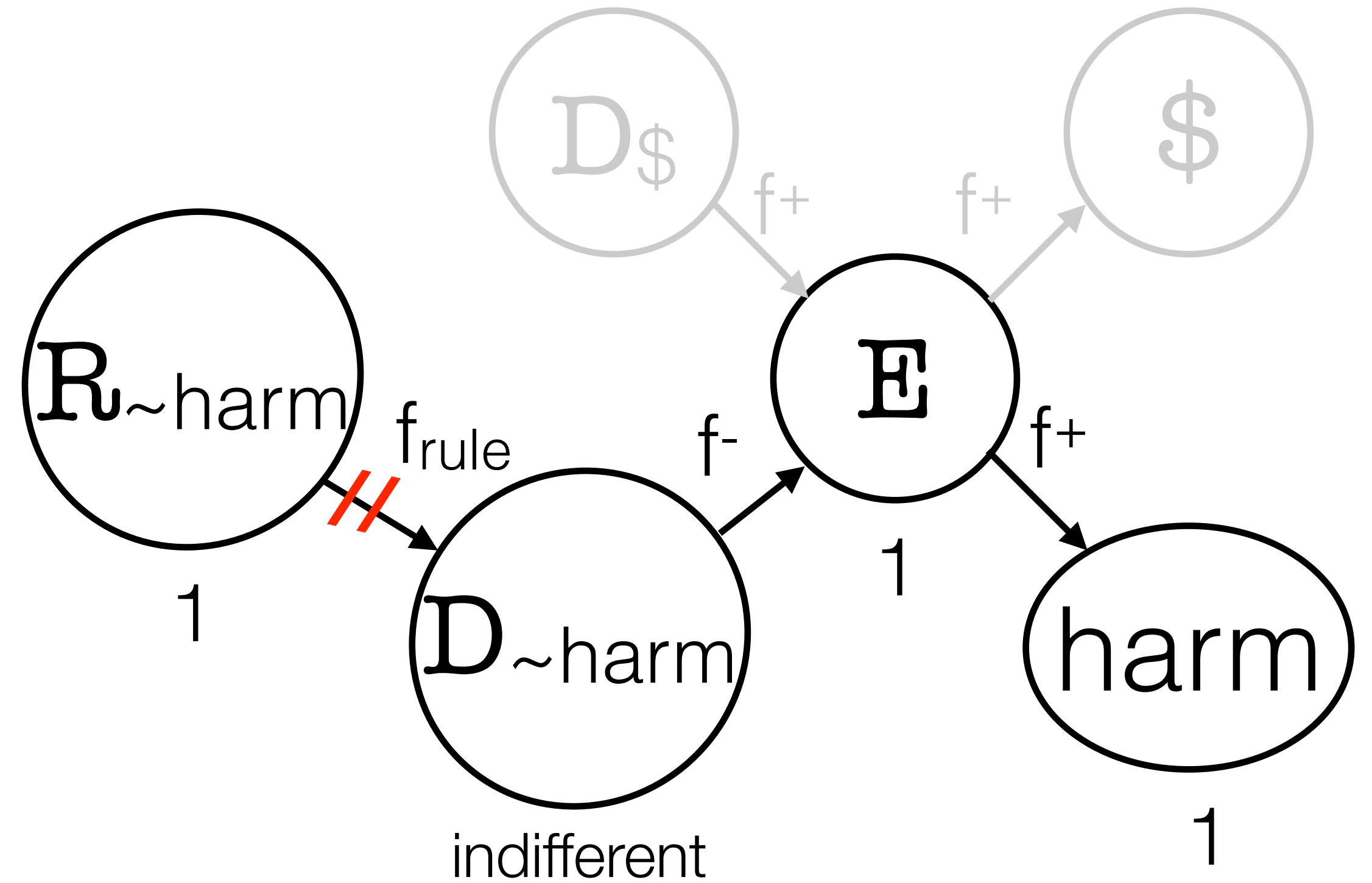


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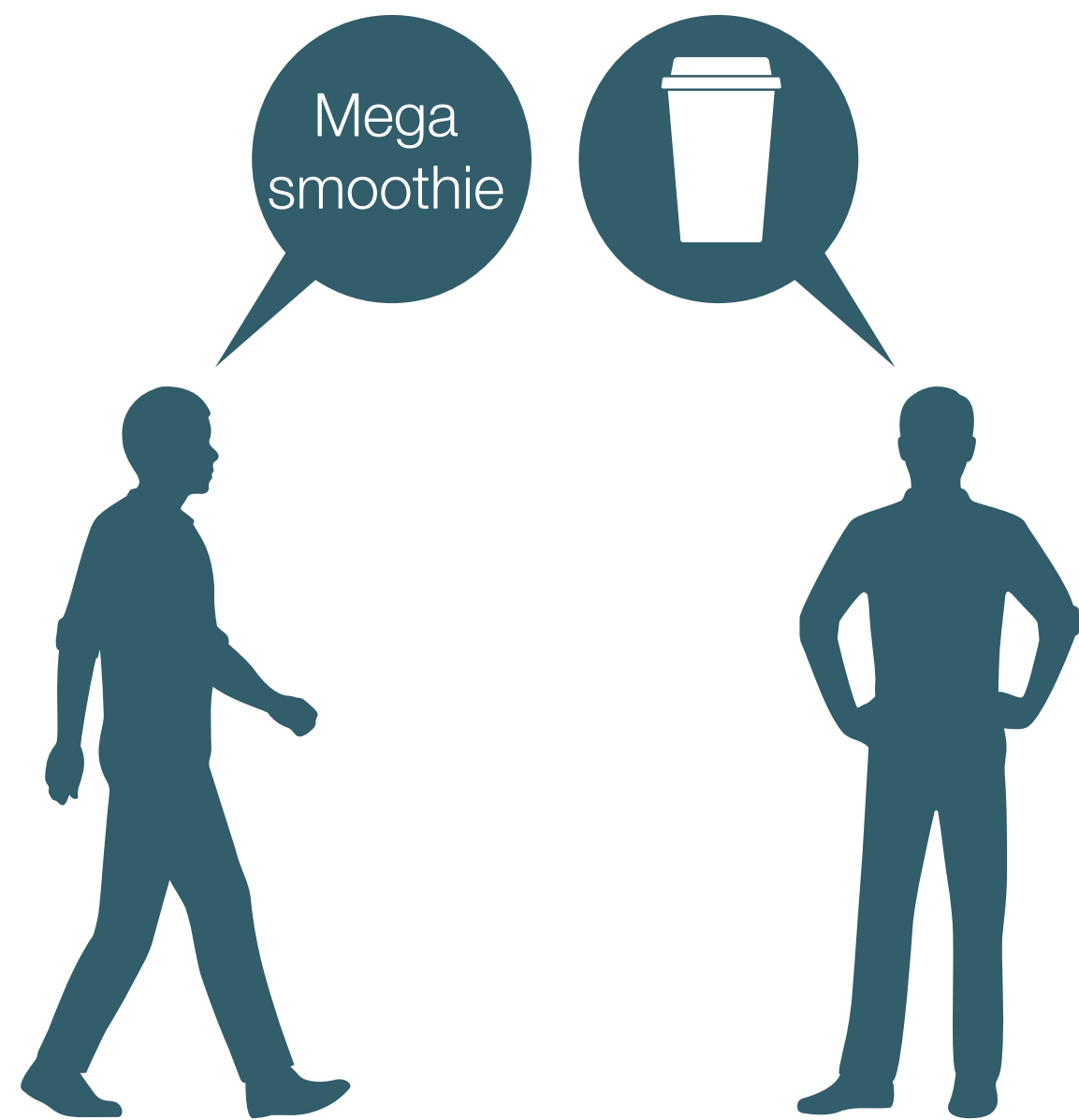
In words:

- norms are represented as either ideals or rules
- would-be prevention
 - indeterminacy is represented with competition / local listening / blocking
 - autonomy is represented with blocking of rule's influence
- there is compositionality
- *x intentionally p*

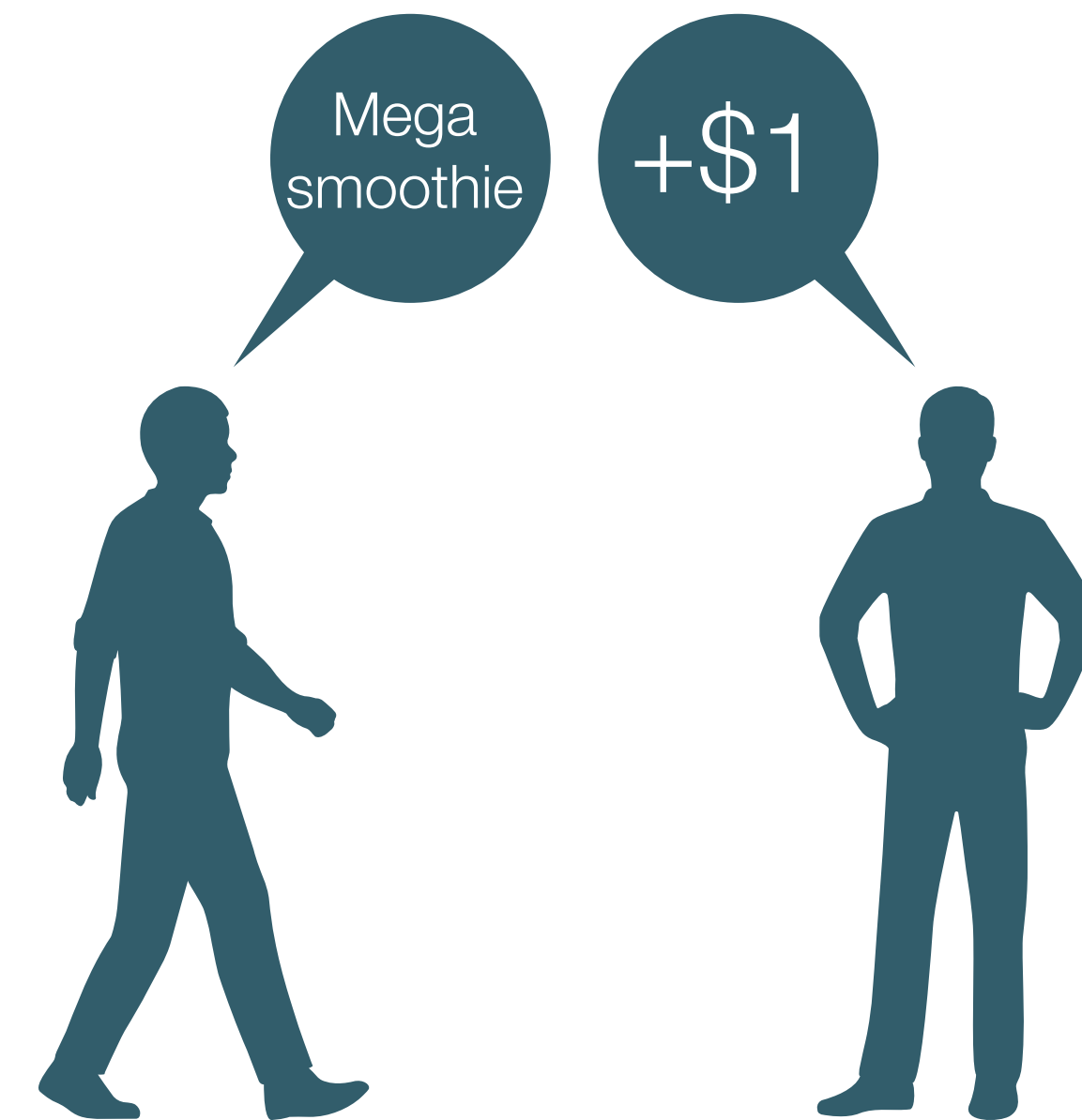
not-at-issue meaning: x is a would-be preventer for p and $\textcircled{E} \rightarrow \textcircled{p}$

at-issue meaning: $\textcircled{D_{@p}} \rightarrow \textcircled{E}$
1

Smoothie scenario (Machery 2008)



(4) a. Did the customer intentionally *get a commemorative cup*? “No”

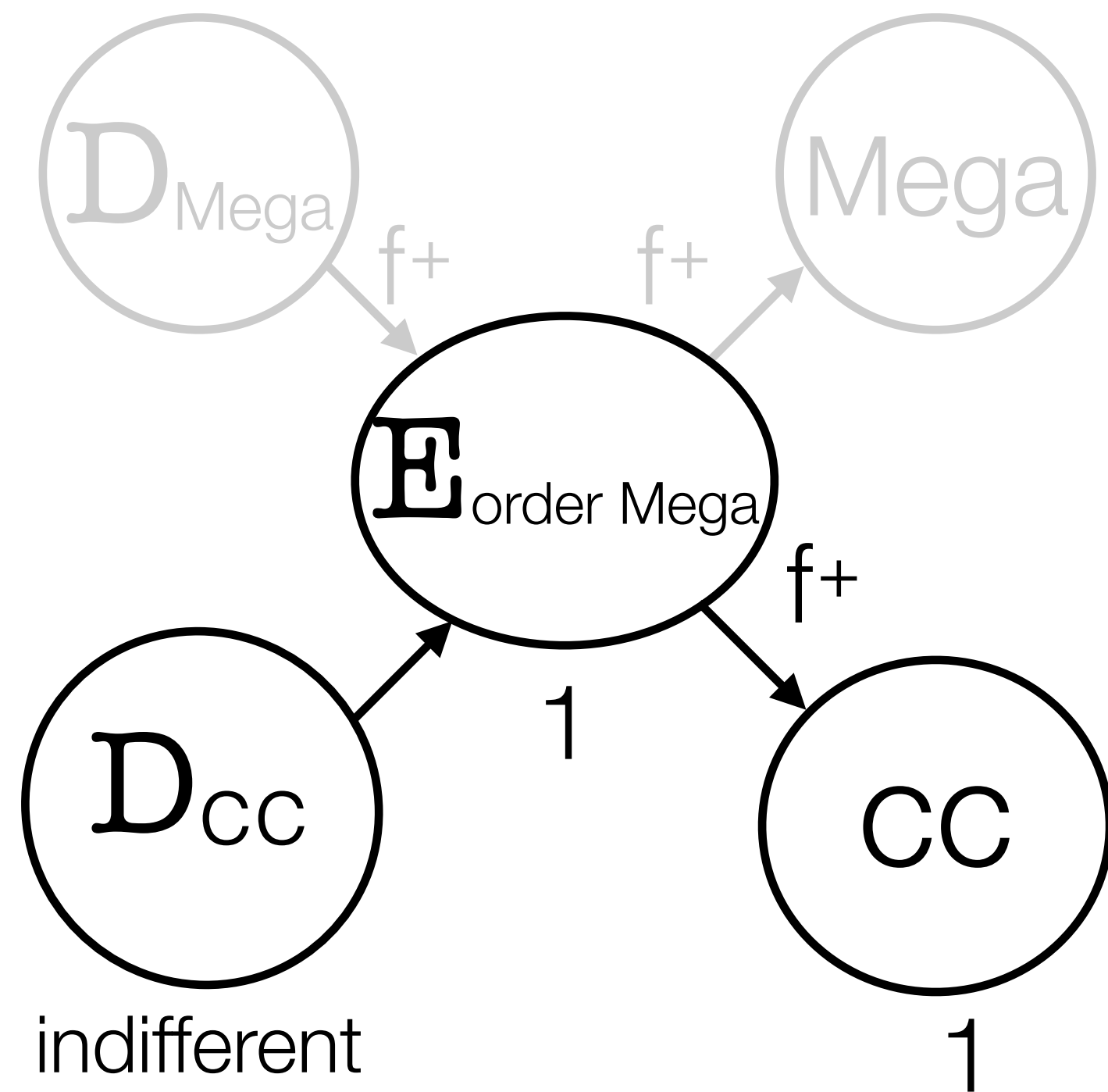


b. Did the customer intentionally *spend an extra dollar*? “Yes”

Smoothie scenario (Machery 2008)

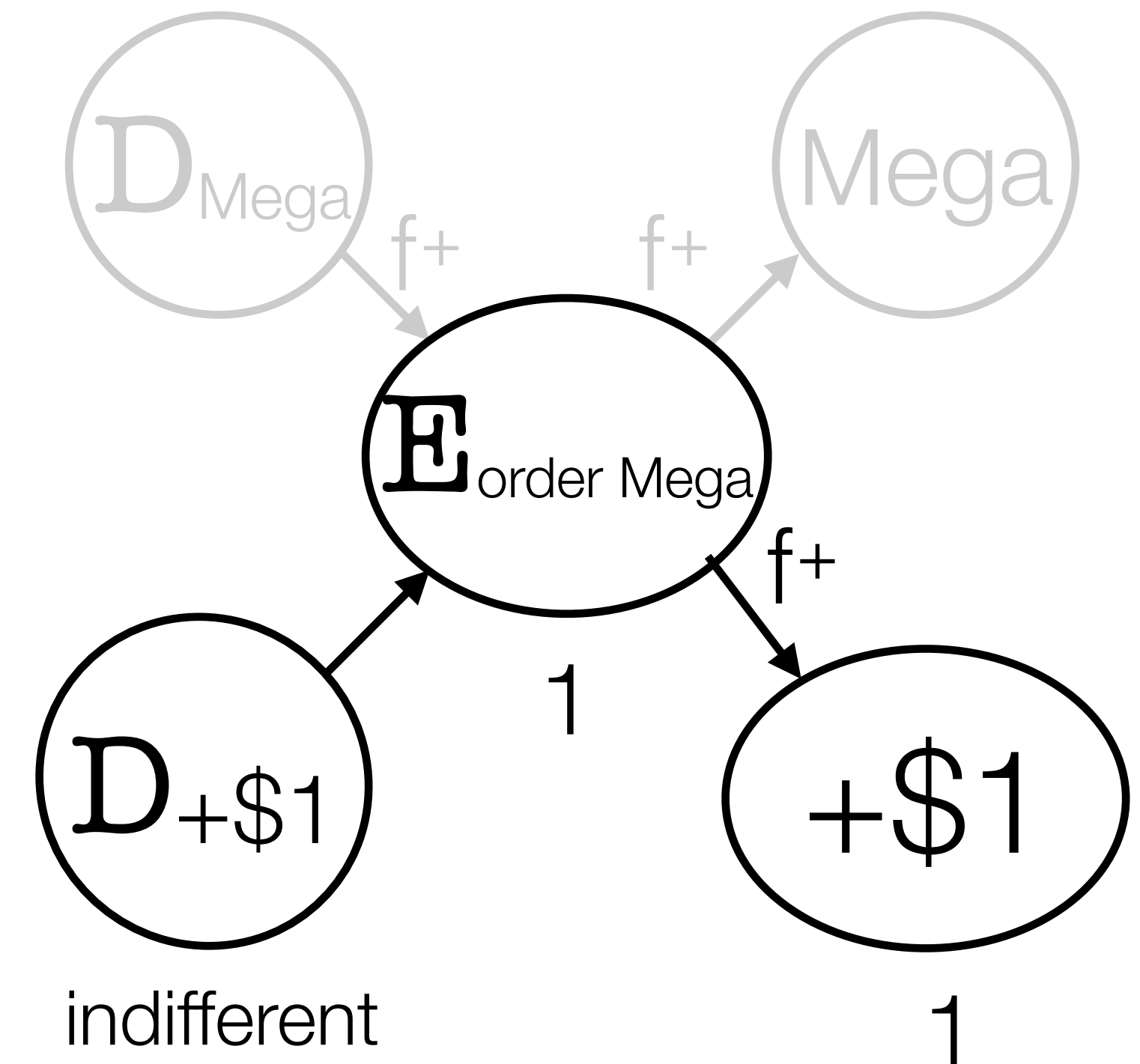
- (5) a. ??Le client a laissé l'employé lui donner une tasse commémorative.
the customer AUX let the-employee him give a cup commemorative
'The customer let the employee give him a commemorative cup.'
- b. Le client a laissé l'employé lui faire payer 1 dollar de plus.
the customer AUX let the-employee him make pay 1 dollar of more
'The customer let the employee charge him a dollar extra.'

(4) a. Did the customer intentionally get a commemorative cup? “No”



D_{cc}	order Mega
1	1
indiff	0 v 1
0	0

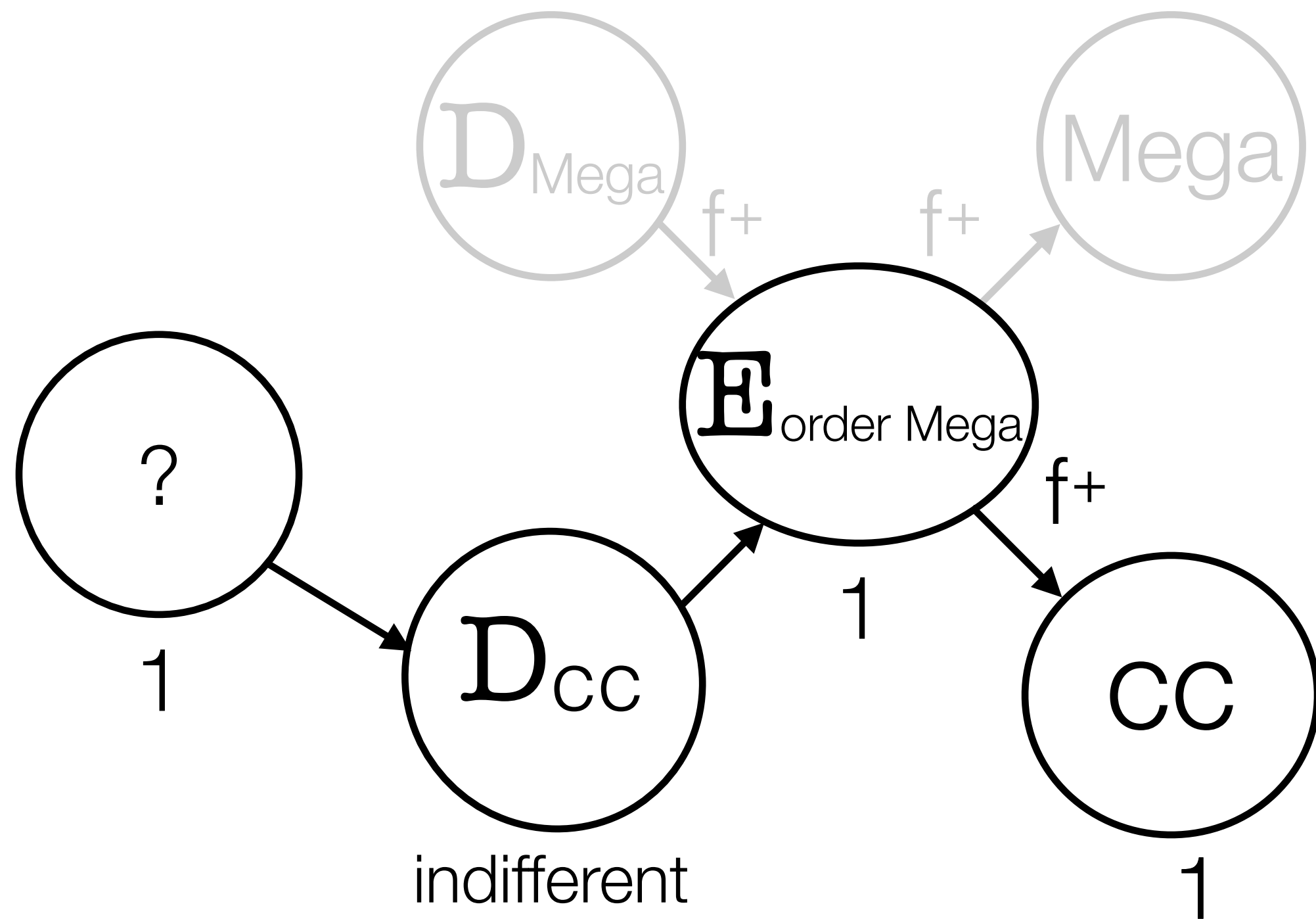
b. Did the customer intentionally spend an extra dollar? “Yes”



$D_{+\$1}$	order Mega
1	1
indiff	0 v 1
0	0

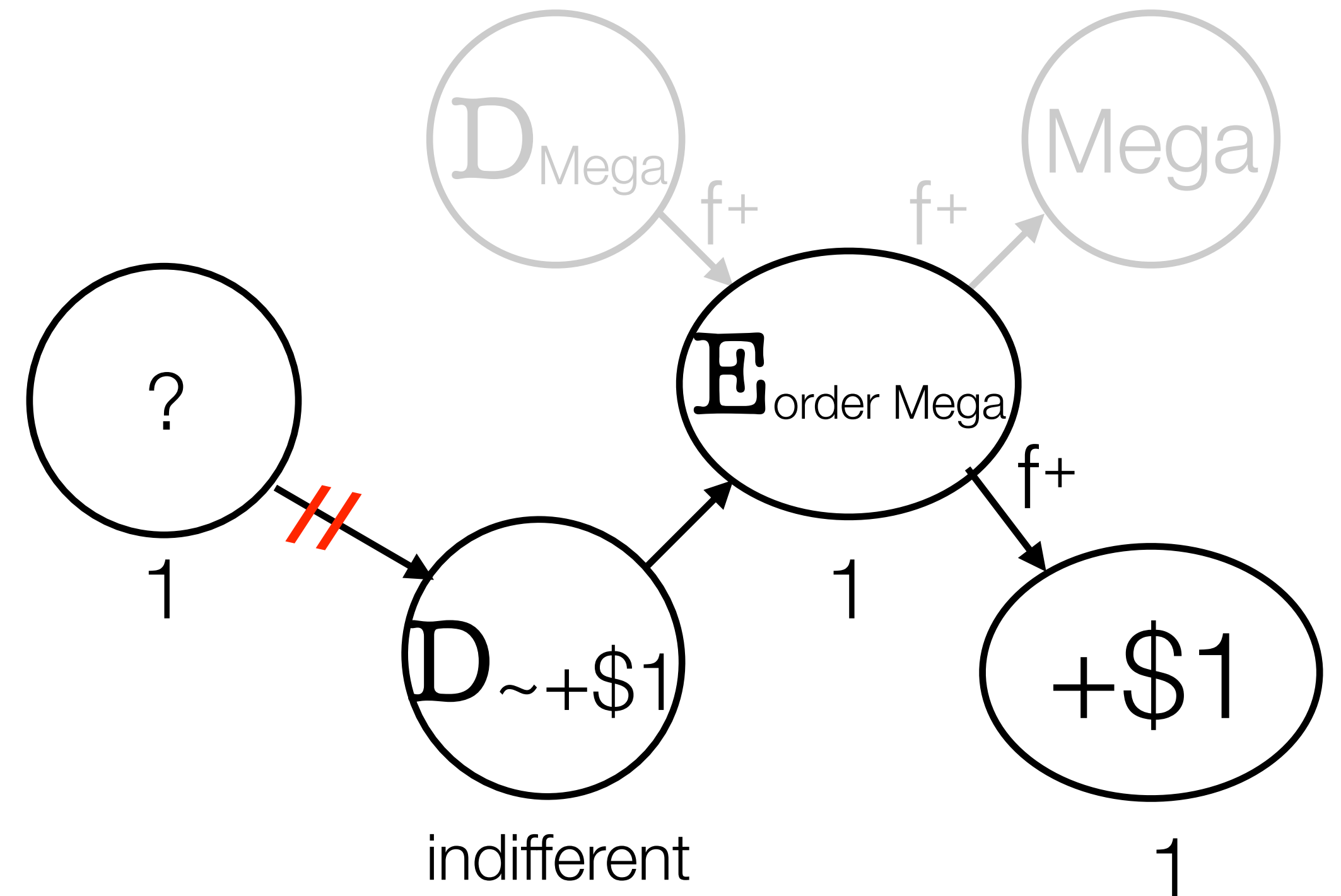
what we want

(4) a. Did the customer intentionally get a commemorative cup? “No”



?	D_{cc}
1	1 v indiff
0	0 v indiff v 1

b. Did the customer intentionally *spend an extra dollar*? “Yes”



?	$+\$1$
1	1
0	0 v indiff v 1

Conclusion and closing thoughts

- Our framework uses a *local listening*/competitive causal model, the idea that the agent is a *would-be preventer*. Compositionality is upheld.
- We think this framework is promising - other scenarios need to be tested
- Predictions for smoothie case: environmental / spendathon
- A tweak to the representations given here: Where should norms (rules and ideals) be formally located? They must be the functions rather than the nodes!

Thanks / merci !

Join us to talk about causal models in semantics!

Converging On Causal Ontology Analyses bcopley.com/cocoa

Jan 26, 2022 05:00 PM Paris time

Bridget Copley, SFL (CNRS/Paris 8) – Intro to causal models for language

Feb 9, 2022 05:00 PM Paris time

Kelsey Sasaki, Oxford – Topic: Causal inferences in narrative

Linda Badan, Ghent University and Marta Donazzan, Univ. Nantes/LLING –

Topic: The multi-purpose causative verb(s) of Mandarin Chinese

Mar 9, 2022 05:00 PM Paris time

Topic: Relating events to causal models

Presenters: Stefan Kaufmann, UConn ; Elitzur Bar Asher-Siegal, HUJ and

Prerna Nadathur, Univ. Konstanz ; Bridget Copley, SFL (CNRS/Paris 8)

Apr 6, 2022 05:00 PM Paris time

Tobias Gerstenberg, Stanford Univ. – Topic: TBA

Daniel Altshuler, Oxford – Topic: Causal inferences in discourse

May 11, 2022 05:00 PM Paris time

Clémentine Raffy, SFL (Paris 8/CNRS) – Topic: Laisser ‘let’

Semra Kizilkaya, Univ. Köln – Topic: Turkish causatives

May 23 and/or 24 - in person / hybrid event TBA with Rebekah Baglini, Aarhus Univ.;

Elitzur Bar Asher-Siegal, HUJ ; and Prerna Nadathur, Univ. Konstanz

Jun 8, 2022 05:00 PM Paris time

Andrew Mackenzie, University of Kansas — Topic: TBA

Shaun Nichols, Cornell University — Topic: TBA

