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KNOWING HOW (I CAN) AND COUNTERFACTUAL SUCCESS

A Problem.[1] If know how is knowledge of ways for one to do something, how to distinguish between the following claims?

1. Hannah knows that that way is a way for her to ride a bicycle.
2. Hannah knows how [PRO*i*] to ride a bicycle.

Stanley (2011) gives two answers: a) the modes of presentation of knowledge that and knowledge how are different, and b) the modal content of the claims differs: know how requires counterfactual success.[2]

[1] Stanley, J. & Williamson, T. (2001) "Knowing How", *The Journal of Philosophy*, 98(8), 411-444.

[2] Cf. Hawley, K. (2003) "Success and Knowledge How", *American Philosophical Quarterly*, 40(1), 19–31.

So, the following would probably hold:

(NCS) If S knows how to ϕ under C circumstances, then if she tried to ϕ under C circumstances, S would ϕ successfully.

(NNCS) If S knows how to ϕ under C circumstances, then if she tried to ϕ under C circumstances, S would normally ϕ successfully.

NCS and NNCS plausibly imply

(NPF) If S knows how to ϕ (under C circumstances), it is possible for S to ϕ (under C circumstances).

(NP) If S knows how to ϕ (under C circumstances), it is possible to ϕ (under C circumstances).

Jack Spencer[3] has argued against parallel thesis in the case of ability:

(PAF) If S is able to ϕ, it is possible for S to ϕ.

(PA) If S is able to ϕ , it is possible to ϕ.

Claim: Spencer's arguments can be applied to the case of knowledge how. That is, considerations like Spencer's show that the counterfactual success condition is not necessary for know how.

[3] Spencer, J. (2017), "Able to do the impossible", *Mind*, 126(502), 465–497.

SIMPLE G. *Suppose that determinism is true. Let h be the complete specification of the initial conditions of the universe, l be the complete specification of the deterministic laws of nature, and $h \wedge l$ be their conjunction. Suppose that G has not, does not and will not believe that $h \wedge l$. We may suppose that it is fairly common knowledge in G's community that $h \wedge l$, that matriculating high school seniors are expected to know $h \wedge l$, that many of G's classmates know $h \wedge l$, and that G is one of the brightest students in her class. The proposition that $h \wedge l$ does not exceed G's cognitive wherewithal, either in length or in complexity, and there are no special obstacles preventing G from forming the belief.*

G has the abilities to believe and to *truly believe* that $h \wedge l$. The ability to truly believe is a *factive ability*: someone can have it only if the facts are appropriate (in this case, if $h \wedge l$ is true): G cannot have the ability to truly believe $h \wedge l$ in worlds where $h \wedge l$ is false.

In worlds where it is true, however, her ability has to go unexercised (because of determinism, all worlds where $h \wedge l$ is true are duplicates of G's world, where she doesn't believe $h \wedge l$.)

So, Simple G is a counterexample to PAF.

We should expect this to happen. We know that individuals are able to do things because we can find *representative attempts*, either factually or counterfactually. But the lack of them does not mean that it is not true that some individuals like those in Spencerian cases have the abilities in consideration. The following seems acceptable:

(Revealing) If S is able to ϕ, and there are enough representative attempts by S to ϕ, then at least one of the representative attempts is a success.

There will be counterexamples to PAF because we cannot assume that modal space contains enough representative attempts.

The problem is not that G did not *try*:

MISHEARING G. *G asks her professor about the laws of nature and initial conditions. Her professor tells her, '$h \wedge l$, but G mishears, and thus comes to believe a nearly true but false proposition.*

Gettier G. *Curious about the initial conditions and the laws of nature, G decides to ask her mother, who does indeed know that $h \wedge l$. However, aliens have randomly chosen her mom to be replaced by an alien facsimile for one night. This replica knows neither h nor l. G, who justifiably takes the facsimile to be her mother, asks her what are the initial conditions and laws of nature. The facsimile takes a wild guess and gets it right. On the basis of the facsimiles's bad testimony, G comes to the true and justified belief that $h \wedge l$, but G does not know that $h \wedge l$, as G fails the Gettier condition on knowledge. G never receives any further evidence, never changes the basis of her belief, ane never comes to know that $h \wedge l$.*

Teacherly G. *F and G are both professors. Students often come by to ask about the initial conditions and the laws of nature. Both F and G know that $h \wedge l$. Students flip a coin to decide which professor to ask—heads, F, tails, G. Perchance, the coins have always landed heads. Thus, while F has taught many students that $h \wedge l$, G has never taught anyone that $h \wedge l$.*

Lonely G. *Suppose that $h \wedge l$ is true, and hence that determinism is true. G, the only intelligent being in the universe, has developed all of modern science and mathematics. As it happens, G never comes to believe that $h \wedge l$, but this is a historical accident. We can supply G with all the requisite technology and make G as able minded as we like.*

Spencer cases can be transposed to the case of know how.

Consider teacherly g again.[4] G plausibly knows how to teach $h \wedge l$. G doesn't get to teach $h \wedge l$ in any possible world. So, Teacherly G is a counterexample to NPF.

Stanley's account of the modal aspect of 'know how' constructions cannot be correct.

[4] F and G are both professors. Students often come by to ask about the initial conditions and the laws of nature. Both F and G know that $h \wedge l$. Students flip a coin to decide which professor to ask—heads, F, tails, G. Perchance, the coins have always landed heads. Thus, while F has taught many students that $h \wedge l$, G has never taught anyone that $h \wedge l$.

Knowing How to Learn. *G asks her teacher about the initial conditions and laws of the universe. Being a busy man, and $h \wedge l$ being quite complicated, her teacher points G to a book where $h \wedge l$ is fully spelled out and explained. However, G becomes suddenly busy writing grant proposals, and never gets to read the book.*

Knowing How to Learn with Tries. *Identical setup to* knowing how to learn. *When G tries to learn from the book, she realizes that she needs to learn linear algebra first. However, linear algebra is beyond her, and she gives up. Thus, G never gets to learn $h \wedge l$.*

Gettiered Learning. *G asks her teacher about the initial conditions and laws of the universe. Unbeknownst to G, her teacher has been replaced by a replica, who doesn't know* $h \wedge l$. *Making a lucky guess, nevertheless, the teacher-replica (not-knowledgeably) teaches G that* $h \wedge l$.

GETTIER KNOWING HOW TO LEARN. *G asks her teacher about the initial conditions and laws of the universe. Unbeknownst to G, her teacher has been replaced by a replica, who doesn't know $h \wedge l$. Making a lucky guess, and feigning being busy, the teacher-replica tells G that she can learn $h \wedge l$ from a book she picks at random from her book stand, which is true.*

I contend that in this case, G knows how to learn $h \wedge l$.[5] If there were Gettier style cases for knowledge how, they would require the subject to successfully perform the action they supposedly know how to do. In Spencerian cases, this is not possible, so in them, know how cannot be Gettiered.

[5] Contra Stanley and Williamson. Cf. Poston, T. (2009) "Know How to be Gettiered", *Philosophy and Phenomenological Research*, 79(3), 743–747.

Lonely Know How. *Suppose that $h \wedge l$ is true. G, the only sentient being in the universe, has realized that he would learn the initial state and laws of the universe if he followed a series of calculations, which are very similar to some calculations he has already proven to be able to do (by performing them). However, G accidentally never gets to perform them.*

How to deal with Spencerian cases?

Spencerian cases are undoubtedly odd, and are prone to provoke incredulous stares. Do they exploit ambiguities in know how attributions? (between what one knows how to do and what one knows (some)one could know how to do, or between what one is able to do circumstantially or generally, for example)?

If we want to accept Spencerian cases, what are our options?

Counterpart-based analysis.

In this picture, it would be sufficient that a counterpart to S counterfactually succeeded in performing either ϕ or an action-counterpart of ϕ.

This strategy would circumvent Spencerian cases by generating more representative attempts. However, there is no guarantee that it will generate enough.

The whole approach is liable to the objection that it changes the topic. Consider lonely know how.[6]

[6] Incidentally, this objection can be made against Bengson and Moffett's (2011) account of knowing how as well.

Go hyperintensional.

Perhaps a framework which allows for non-trivial counterfactuals could yield an adequate analysis of abilities or know how. There are several options in this space.[7]

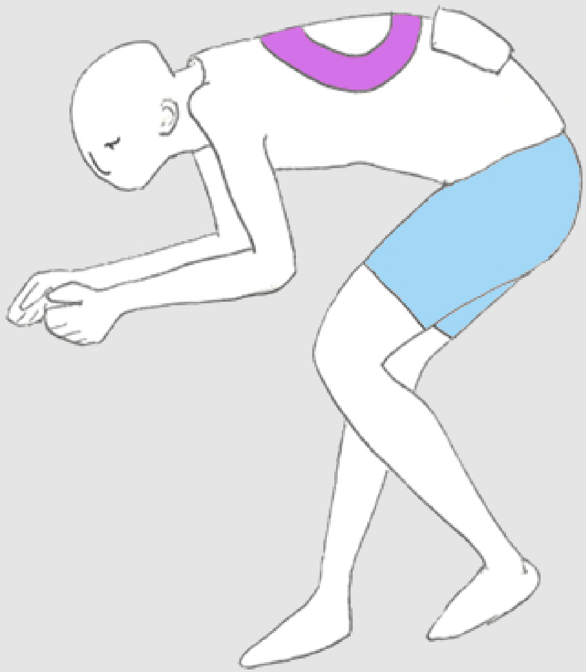
A general solution that covers all sorts of Spencerian cases is desirable, but this will require an account of hyperintensionality that does not make it a purely representational phenomenon (otherwise, how should we account for Spencerian cases for abilities?). In this sense, a hyperintensional analysis of knowledge how might be less demanding.

[7] Cf. Nolan, D. (1997) "Impossible Worlds: A Modest Approach", *Notre Dame Journal for Formal Logic*, 38(4): 535–572; Brogaard & Salerno (2013)"Remarks on Counterpossibles", *Synthese*, 190: 639–660; Bjerring, J. (2014) "On Counterpossibles", *Philosophical Studies*, 168: 327–353.; Jago, M. (2014) *The Impossible: An Essay in Hyperintensioanlity*, Oxford: Oxford University Press.

In summary:

1. Spencerian cases threaten the counterfactual success condition for know how.
2. Dealing with Spencerian cases will likely force us to consider an hyperintensional analysis of know-how (this is somewhat unexpected). It is not clear (for now) how to develop this idea.

THANKS!



Pervasive inability

PI. *Louis, a competent mathematician, knows how to find the n^{th} numeral, for any numeral n, in the decimal expansion of π. He knows the algorithm and knows how to apply it on any given case. However, because of principles computational limitations, Louis (like all ordinary human beings) is unable to find the 10^{46} numeral in the decimal expansion of π.*[8]

[8] Bengson, J. & Moffett, M. (2011) "Nonpropositional intellectualism", in *Knowing How*, Oxford: Oxford University Press, 161–195.

(SSI Negative Justification) One can correctly say that one knows how to ϕ iff one cannot rule out that one could do ϕ by some means.

(Reasonableness) If one cannot rule out that one can ϕ, it is reasonable for one to try to ϕ.

(Contextualist Negative Justification) One can correctly say that S knows how to ϕ iff one knows that S could do ϕ by some means, and one cannot rule our that S could do ϕ by some means.

Partial worlds

(Ability from Partial Worlds) An S is able to ϕ if there is a partial world for which there is an accessible complete world where S ϕ-es.