

Knowledge and Pragmatic Factors

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Abstract

The *stakes-shifting cases* suggest that pragmatic factors such as stakes play an important role in determining our intuitive judgments of whether or not S knows that p. This seems to be in conflict with *intellectualism*, according to which pragmatic factors in general should not be taken into account, when considering whether or not S knows that p. This paper develops a theory of judgments of knowledge status that reconciles intellectualism with our intuitive judgments regarding the stakes-shifting cases. I argue that pragmatic factors affect only our *epistemic perspectives*, i.e., the ways in which we evaluate S's epistemic position. Therefore, pragmatic factors only have an *indirect* impact on our judgments of knowledge status.

Keywords: Stakes-shifting cases, intellectualism, epistemic perspective, epistemic goal, promotion and prevention

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知識與實用因素

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摘要

在面對風險轉換案例的時候，一般人直覺上覺得，這些案例顯示，諸如風險這類的實用因素（pragmatic factors）對我們判斷某個主體是否擁有知識，扮演非常重要的角色。這個觀察似乎會跟智性主義（intellectualism）的主張有所衝突。根據智性主義，當我們判斷某個主體是否擁有知識的時候，實用因素並不是需要考量的因素。這篇文章發展一個知識判斷理論，可以調和我們對風險轉換案例的直覺判斷跟智性主義的衝突。筆者將論證，實用因素不會直接影響我們的知識判斷，而只會通過影響我們的知性角度（epistemic perspective），間接地影響我們的知識判斷。

關鍵詞：風險轉換案例、智性主義、知性角度、知性目標、促進與預防

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I. The Problem of the Stakes-Shifting Cases

Recently, some widely discussed cases suggest that our judgments of whether or not someone knows something depend partly on pragmatic factors such as what is at stake.¹ Such cases are regarded as posing a serious challenge to *intellectualism* whose crux is that the factors that turn true belief into knowledge are exclusively truth-related (cf. Stanley, 2005). In this paper, I try to develop an account of our judgments of knowledge that respect both intellectualism and our intuitive judgments of knowledge in those cases, based on the idea that pragmatic factors play a crucial role in determining our appraisal of one's epistemic position.

Let us begin by introducing the main question at issue. Consider the following pair of cases:

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¹ See, for instance, DeRose's Bank Case (2009), Cohen's Airport Case (1999). Also cases in Stanley (2005).

Low Stakes. Hannah and her wife are driving home on a Friday afternoon. They plan to stop at the bank on the way home to deposit their paychecks. It is not important that they do so, as they have no impending bills. But as they drive past the bank, they notice that the lines inside are very long, as they often are on Friday afternoon. Realizing that it isn't very important that their paychecks are deposited right away, Hannah says, 'I know the bank will be open tomorrow, since I was there just two weeks ago on Saturday morning. So we can deposit our paychecks tomorrow morning.' (Stanley, 2005: 3-4)

High Stakes. Hannah and her wife Sarah are driving home on a Friday afternoon. They plan to stop at the bank on the way home to deposit their paychecks. Since they have an impending bill coming due, and very little in their account, it is very important that they deposit their paychecks by Saturday. Hannah notes that she was at the bank two weeks before on a Saturday morning, and it was open. But, as Sarah points out, banks do change their hours. Hannah says, 'I guess you're right. I don't know that the bank will be open tomorrow.' (Stanley, 2005: 4)

Suppose that in both cases, the bank will be open tomorrow. Our intuitive judgments of Hannah's knowledge status, arguably, are that Hannah *knows* that the bank will be open tomorrow in Low Stakes, but *not* in High Stakes.²

Call any pair of cases like Low and High Stakes the *stakes-shifting cases*³. Put more generally, a pair of cases C1 and C2 is an instance of the stakes-shifting

² Some might disagree. While I believe that our judgments of the subject's knowledge status regarding cases like Low and High Stakes are generally unproblematic, I will not deal with this issue here, for doing so will lead us too far afield.

cases if and only if (a) the subject S's *truth-related factors*⁴ (e.g., evidence, reason, belief-forming mechanism) with respect to p remain constant across C1 and C2, and (b) S's stakes in whether or not p is the case are low in C1 but high in C2, and (c) we intuitively judge that S knows that p in C1 but not in C2.

The stakes-shifting cases are theoretically important since they appear to be incompatible with a widely accepted thesis:

Intellectualism. Whether a true belief counts as knowledge or not depends entirely on truth-related factors.⁵

Intellectualism implies that non-truth-related, i.e. *pragmatic*, factors do not constitute the *warrant condition* of knowledge—following Alvin Plantinga (1993), ‘warrant’ is used as a placeholder for whatever condition that turns true belief into knowledge. It follows that intellectualism implies that when evaluating one’s knowledge status, only considerations regarding one’s belief, its truth value, and one’s truth-related factors (i.e., one’s *epistemic position*) should be taken into account.

Given that Hannah believes truly that the bank will be open tomorrow in both Low and High Stakes, intellectualism seems to imply that we should *not*

³ I borrow this term from Schaffer (2006).

⁴ DeRose takes truth-related factors with regard to p to “affect how likely it is that [p] is true, either from the point of view of the subject or from a more objective vantage point” (DeRose 2009, 24). In a similar vein, Stanley defines truth-related factors (he calls them ‘truth-conducive factors’) with regard to p as the kind of factors that “makes [p] more likely to be true, either objectively or from the point of view of the subject” (Stanley, 2005: 1).

⁵ The term ‘intellectualism’ is from Stanley (2005). According to Stanley, intellectualism is the thesis that “knowledge does not depend upon practical facts” (Stanley, 2005: 6). DeRose formulates intellectualism as the thesis “according to which the factors in virtue of which a true belief amounts to knowledge are exclusively truth-relevant” (DeRose, 2009: 24). Fantl and McGrath call it ‘purism about knowledge’ (Fantl and McGrath, 2009). Many have found intellectualism intuitively plausible. For objections to intellectualism, see, e.g., Stanley (2005), McGrath (2010).

judge Hannah's knowledge status differently regarding Low and High Stakes. For, arguably, Hannah's truth-related factors with regard to *The bank will be open tomorrow*⁶ do not vary with such cases. Hence, intellectualism seems to be incompatible with our initial intuitions regarding stakes-shifting cases. Call the tension between intellectualism and our intuitive judgments of knowledge status the *problem of the stakes-shifting cases*.

It is worth noting that the problem of the stakes-shifting cases is not about *knowledge* but rather *judgments* of knowledge. Here, we are facing two distinct, though related, types of inquiry.⁷ An inquiry into knowledge aims at analyzing the conditions constitutive of or presupposed by knowledge. An inquiry into our judgments of knowledge, by contrast, aims at uncovering the psychological root of our inclination to judge one's knowledge status in a certain way.⁸ The problem of the stakes-shifting cases, as I see it, is related to the latter, not the former.

In this paper, I will develop an account that respects both intellectualism and our judgments of knowledge in the stakes-shifting cases. The general approach adopted here is that pragmatic factors have no *direct* impact on our judgments of one's knowledge status—when assessing whether one's true belief counts as knowledge, we consider merely truth-related factors. Intellectualism is thus respected. However, pragmatic factors are regarded as having an *indirect* impact on our judgments of one's knowledge status; they affect our judgments of the satisfaction of a certain necessary condition of knowledge. As a result,

⁶ Throughout this paper, propositions are italicized.

⁷ Also see Nagel's distinction between a theory of intuitive knowledge ascription and a theory of knowledge (Nagel, 2010: 428).

⁸ Admittedly, these two kinds of inquiry are closely related to each other. Their relationship, however, is not the focus of this paper.

the difference in our intuitive judgments regarding the stakes-shifting cases can be respected, too.

Along this line, Jennifer Nagel (2008; 2010) has argued that pragmatic factors play a crucial role in determining our judgments of whether or not the subject believes that *p* in the stakes-shifting cases. In the next section, I discuss and reject Nagel's solution. I will then argue, in Section 3 and Section 4, that a more promising solution is to appeal to the idea that pragmatic factors play a crucial role in determining our judgments of (the strength of) the subject's epistemic position.

II. The Doxastic Account

Nagel claims that pragmatic factors have a direct bearing on our judgments of whether or not *S* believes that *p* in the stakes-shifting cases. She tries to resolve the problem of the stakes-shifting cases by arguing that the difference in *S*'s stakes in such cases causes one to judge that *S* believes that *p* in the low-stakes cases but not in the high-stakes ones. And since knowledge requires believing (call this the *doxastic condition*), it is natural to judge *S* as knowing in the former cases but not the latter ones. Let us elaborate.

Siding with Kent Bach (2005), Nagel also takes the shift of our judgments of knowledge status regarding the stakes-shifting cases to depend on our recognition that the subject in the high-stakes cases has a higher threshold for outright belief (Nagel calls it 'confident belief') than does the subject in the low-stakes cases. Nagel characterizes the threshold for outright belief in terms of the concept of *need-for-closure*, which is developed in great detail by psychologist Arie

Kruglanski (cf. Kruglanski and Webster 1996; Kruglanski 1989). Here, “‘closure’ marks the switch from the formation to possession of a belief” (Nagel, 2008: 281). Prior to closure a subject is still in the process of forming a belief by “[figuring] out what to believe, searching for information, and weighing various alternatives”; after closure, by contrast, the subject will settle for an outright belief (Nagel, 2008: 281). A low need-for-closure subject has a higher threshold for outright belief than a high need-for-closure subject. Moreover, a high-stakes subject typically has a lower need-for-closure than does a neutral subject.

On Nagel’s account, we recognize that Hannah in Low Stakes, as a neutral subject, has a neutral (neither high nor low) need-for-closure, while Hannah in High Stakes, as a high-stakes subject, has a low need-for-closure (Nagel, 2008: 288). We thus judge that Hannah’s degree of confidence regarding *The bank will be open tomorrow* passes the (neutral) threshold for outright belief (i.e., her belief formation reaches a closure) in Low Stakes, while her degree of confidence regarding the same proposition does not pass the (low) threshold for outright belief (i.e., her belief formation does not reach a closure) in High Stakes. As a result, we judge that Hannah knows that the bank will be open tomorrow in Low Stakes, since we judge, among other things, that Hannah believes that the bank will be open tomorrow in this case (Nagel, 2008: 288-289). By contrast, we judge that Hannah does not know that the bank will be open tomorrow in High Stakes, since we judge, among other things, that Hannah fails to believe (outright) that the bank will be open tomorrow (Nagel, 2008: 299). Let us call an account based on the idea that pragmatic factors such as stakes determine our judgments of the satisfaction of the doxastic condition regarding the stakes-shifting cases the *doxastic account*.

A crucial premise of the doxastic account is that our judgments of knowledge status regarding the stakes-shifting cases depend on our recognition of the shift of the subject's doxastic status across such cases. This premise, as I will now argue, suffers from two serious problems. First, as Jason Stanley points out (2005: 6-7), the doxastic account faces an immediate counterexample:

Ignorant High Stakes. Hannah and her wife Sarah are driving home on Friday afternoon. They plan to stop at the bank on the way home to deposit their paychecks. Since they have an impending bill coming due, and very little in their account, it is very important that they deposit their paychecks by Saturday. But neither Hannah nor Sarah is aware of the impending bill, nor of the paucity of available fund. Looking at the lines, Hannah says to Sarah, 'I know the bank will be open tomorrow, since I was there just two weeks ago on Saturday morning. So we can deposit our paychecks tomorrow morning. (Stanley, 2005: 5)

I take it that we intuitively judge that Hannah's judgment of her knowledge status in this case is incorrect; Hannah does not really know that the bank will be open tomorrow in Ignorant High Stakes, by our lights.

Intuitively, Hannah believes that the bank will be open tomorrow in Ignorant High Stakes. On Nagel's view, Hannah's degree of confidence regarding *The bank will be open tomorrow* should still pass the (neutral) threshold for outright belief, since she is unaware of her stakes. Moreover, since it seems that Hannah's epistemic position with regard to *The bank will be open tomorrow* in Ignorant High Stakes is basically identical to the one in Low Stakes, proponents of the doxastic account have to admit that Hannah

does know that the bank will be open tomorrow in Ignorant High Stakes. Counterintuitive.

Cases like Ignorant High Stakes pose a formidable challenge to the doxastic account, since they clearly indicate that our judgments of S's knowledge status regarding the stakes-shifting cases do not always track our judgments of the satisfaction of the doxastic condition. In particular, it is not the case that our judgments of S's lack of knowledge of *p* regarding the high-stakes cases rely on our judgment that S lacks belief of *p*.

In reply, Nagel embellishes the doxastic account with the idea that when assessing Hannah's epistemic position in Ignorant High Stakes, we have committed a kind of cognitive error. For Nagel, we have a "standing temptation to assess ignorant high stakes cases as if they were perceived high stakes cases [i.e. cases where the subject recognizes the high stakes in play]" (Nagel, 2008: 292). Nagel further suggests that this standing temptation "can be explained in terms of the hindsight bias: it is psychologically very difficult to suppress our knowledge of the subject's stakes in evaluating her reasoning" (Nagel, 2008: 292). "We have a well-documented tendency," Nagel writes, "to misread the mental states of those who are more naïve than we are, to evaluate them as though they were privy to our concerns, without being aware that we are doing so" (Nagel, 2010: 425). Nagel hypothesizes that since we know that Hannah's stakes in whether the bank will be open tomorrow are high in Ignorant High Stakes, by the hindsight bias, we mistakenly take Hannah as recognizing the high stakes in play. Hence, we expect, mistakenly, that Hannah does not believe that the bank will be open tomorrow. As a result, we judge (mistakenly!) that Hannah does not have knowledge in Ignorant High Stakes (also cf. Nagel, 2010: 426).

The hindsight bias is a robust phenomenon. Psychological studies have shown that people tend to impute, sometimes mistakenly, their own knowledge to others (cf. Nickerson, Baddeley, and Freeman, 1987; Fussell and Krauss, 1991). However, the fact that people sometimes mistakenly assume others to possess the same knowledge as they do does not imply that they commit the hindsight bias when considering Ignorant High Stakes. Notice that, in general, our understanding of someone's knowledge status is not always subject to the hindsight bias. In many occasions, we can understand others quite correctly, without imputing our own knowledge to them (cf. Nickerson, 1999). Nagel has offered no evidence for the claim that we commit the hindsight bias when assessing Ignorant High Stakes.

To the contrary, there are good reasons to believe that we do not commit the hindsight bias here. Firstly, as Raymond Nickerson points out, in assessing what a particular agent knows, one usually starts by imputing one's knowledge to the agent, especially "in the absence of knowledge, or of a basis for inferring, that the other's knowledge is different from one's own" (Nickerson, 1999: 745). However, one will update one's models of what the other knows based on information regarding whether the other has the same or different knowledge as one does (Nickerson, 1999: 740). It follows that if one is to understand Ignorant High Stakes properly, one cannot impute one's knowledge of the stakes in play to Hannah, since the case explicitly states that Hannah is unaware of the stakes in play. Hence, if Nagel was right that the hindsight bias gave rise to our judgments of knowledge in Ignorant High Stakes, it must be that we systematically failed to understand the case properly. However, it is very implausible to say that we systematically failed to appreciate the explicit

description of Hannah's ignorance about the stakes when considering Ignorant High Stakes. Secondly, the hypothesis that we expect, mistakenly, that Hannah does not believe that the bank will be open tomorrow is simply untenable. For it seems that our judgments of Hannah's knowledge status will not alter even if Ignorant High Stakes is so stipulated such that Hannah is explicitly specified to *believe* that the bank will be open tomorrow.

The second, no less worrisome problem is that the doxastic account has difficulties explaining our intuitive judgments regarding knowledge status when *both* the low-stakes and high-stakes cases are considered together. When both cases are conceived together, our judgments tend to converge. As Keith DeRose observes: "If I were presented with the [high-stakes] and [low-stakes] cases together, then the pressure to give the same verdict about whether the subject in question knows in the two cases would be great—and greater than is the pressure to rule that one or the other of the claims made within the cases (that the subject 'knows' in [the low-stakes cases], and doesn't know in [the high-stakes cases]) must be false" (DeRose, 2009: 49, footnote 2). Specifically, it seems that we tend to judge that Hannah does *not* really know that the bank will be open tomorrow when both Low and High Stakes are conceived together. However, if Nagel was right that our judgments of Hannah's lack of knowledge in Low Stakes (High Stakes) consisted in our judgments that Hannah believes (does not believe) that the bank will be open tomorrow, then it is bizarre that we also have the tendency to judge that Hannah does not really know in Low Stakes when Low and High Stakes are considered together. For regardless of whether Low Stakes is considered alone or jointly with High Stakes, we should judge that Hannah does believe that the bank will be open tomorrow; likewise,

Hannah's degree of confidence should still pass the (neutral) threshold for outright belief in Low Stakes. If so, there is no reason to judge that Hannah lacks knowledge in Low Stakes at all. Clearly, the hindsight bias does not help here. The hindsight bias arises from our tendency "to misread the mental states of those who are more naïve than we are, to evaluate them as though they were privy to our concerns, without being aware that we are doing so" (Nagel, 2010: 425). But Hannah in Low Stakes is clearly not epistemically more naïve than we are; our knowledge of Low Stakes is mainly identical to Hannah's (if pressed, we can simply stipulate that Hannah in Low Stakes knows as much as we do about the case, or the other way around!).

Further reflection suggests that our judgments of knowledge status regarding Low Stakes are *dominated* by our judgments of knowledge status regarding High Stakes in the sense that the former will simply be in line with the latter, whenever both cases are under consideration. To elaborate, notice the asymmetry of the shift of our judgments of knowledge status, when Low and High Stakes are considered in different order. Suppose that Low Stakes is considered first. Intuitively, we will judge that Hannah knows that the bank will be open tomorrow. But suppose that High Stakes is then brought up (assuming that our memory of Low Stakes is still fresh, etc.). It seems that we will then tend to judge that Hannah lacks knowledge in both cases—that is, we intuitively judge that Hannah lacks knowledge in High Stakes, and we then come to judge that she does not really know in Low Stakes either. But there is no shift of judgments when High Stakes is introduced prior to Low Stakes. That is, when High-Stakes is introduced first and we judge that Hannah does not know, our judgments will not be swayed if we then consider Low Stakes—we will still judge, it

seems to me, that Hannah does not really know. Such a domination of the judgment regarding High Stakes causes problems to the doxastic account. For nothing in the view suggests that we should favor our judgments regarding one case over another. It is not feasible to appeal to the hindsight bias here, either. For one thing, as noted above, Hannah in Low Stakes is not epistemically more naïve than us. But even if this problem is put aside, the hindsight-bias hypothesis still falls short of explaining this phenomenon, as it is not clear why we commit the hindsight bias toward Low Stakes based on our understanding of High Stakes, but not the other way around. Rather, it seems equally sensible to suggest that we commit the hindsight bias toward High Stakes based on our understanding of Low Stakes instead. Hence, without further arguments, which Nagel does not offer, the hindsight bias is simply unequipped to predict that our judgments regarding Low Stakes are dominated by the ones regarding High Stakes.

III. Epistemic Perspectives: Promotion vs. Prevention

The failure of the doxastic account should not debar us from exploring the general approach that pragmatic factors affect our judgments of knowledge via affecting our judgments of the satisfaction of a certain necessary condition of knowledge. In what follows, I propose a new hypothesis along this line, namely, pragmatic factors affect our judgments of the satisfaction of the *warrant condition*. The idea, roughly, is that pragmatic factors alter our *ways of seeing* the subject S's epistemic position so that we judge that S's epistemic position is enough for knowledge in the low-stakes case but not in the high-stakes one.

I will show that this hypothesis can handle our intuitions regarding stakes-shifting cases nicely.

To begin with, notice that an act of evaluation in general presupposes a certain way of seeing things. Call it a *perspective*. One's perspective on an object or event determines how one would evaluate the object or event. This phenomenon has been explicitly emphasized by the intensional decision theorists, who argue that a satisfactory explanation of how a decision-maker makes decision need to take into account not only the decision-maker's beliefs about, and her utility of, the outcomes, but also her perspective on them.

This point has been forcefully argued by Frederic Schick in a series of works (1991; 1997; 2003). On Schick's view, perspectives are "our conceivings and labelings of the fact [seen]. They are the mental *hold* we have on them, our *prehension* of them" (Schick, 1997: 23). Perspectives are essential to value appraisals. For instance, in order (for us) to judge that one's action of killing a person is morally wrong, it must be that this action is seen (by us) in a certain way, say, as an act of murder. Interestingly, the very same object or event can be judged differently provided that different perspectives are adopted. Consider two of Schick's examples. A person at her thirty may see her life as half-over or as half-left. But only the second perspective, not the first one, seems to lead her to a rather upbeat understanding of her status (Schick, 1997: 24). Similarly, the same action—say, shooting a person—might be seen as shooting a Fascist or as shooting a fellow-creature. The second perspective leads one to see the action as morally regrettable in a way that the first perspective does not (Schick, 2003: 3).

People may have different perspectives on the same thing at the same time, and a person may have different perspectives on the same thing at different times. Two people at their thirty may see their lives differently; one sees her life as half-over, while the other sees it as half-left. I used to see his act as shooting a Fascist but not any more. More importantly, the shift of pragmatic factors and/or contexts alone may suffice to shift our perspectives. For instance, while a thirty-year-old person might often see that there is still a half of her life left to enjoy, she might see her life as half-over in a moment of self pity. Likewise, a soldier might see her behavior of shooting a person as shooting a Fascist during the war, but have then seen herself as shooting a fellow-creature after the war.

For the present purposes, I will focus on our perspectives on someone's epistemic position, i.e., our *epistemic perspectives*. The working hypothesis I want to pursue here is that the shift of our epistemic perspectives regarding the stakes-shifting cases explains the shift of our judgments of knowledge status regarding such cases. More precisely, our judgments of S's epistemic position with regard to p, which depends partly on our epistemic perspectives, is the sole determinant of our judgments of S's knowledge status regarding the stakes-shifting cases—if we judge S's epistemic position as reaching the knowledge-level, we judge that S knows; otherwise, not (more on this in Section 4).

What are epistemic perspectives? Epistemic perspectives are closely related to epistemic goals. To adopt an *epistemic* perspective is tantamount to evaluating how good one's epistemic position is in achieving the *epistemic goal*. What, then, is the epistemic goal? On the traditional view, our sole epistemic goal is

truth. “We must know the truth; and we must avoid error,” William James says, “these are our first and great commandments as would be knowers” (James, 1992: 469; italics omitted). Similarly, Laurence Bonjour contends that what “makes us cognitive beings at all is our capacity for belief, and the goal of our cognitive endeavors: *truth*” (BonJour, 1985: 83). The orthodox view, however, has been fiercely questioned recently. For instance, some have claimed that, aside from truth, understanding also serves as a distinct epistemic goal (cf. Riggs, 2003; also see Pritchard, Millar, and Haddock, 2010). Fortunately, we do not need to settle this question here. For the stakes-shifting cases concern only with truth—when evaluating Hannah’s belief, for instance, our focus is on the truth-related factors of her belief.

How does aiming at truth play a role in shaping our epistemic perspectives? Here, I think psychological literature has much to teach us. Psychological studies of motivation and decision making have revealed that the very same goal can be approached via either *promotion* or *prevention concerns* (Higgins, 1997; Higgins, 2000). Promotion concerns aim at the presence of positive outcomes or advancement, while prevention concerns aim at the absence of negative outcomes or security. For instance, to borrow E. Tory Higgins’ example, two students S_1 and S_2 motivated to earn an A might approach this goal via different concerns. S_1 might see earning an A as an opportunity to improve her class rank, while S_2 might see it as a necessity for protecting her good standing in the premedical program (Molden, Lee, and Higgins, 2008: 171). Seeing earning an A as an advancement, S_1 ’s motivation is based on promotion concerns; seeing earning an A as a security, S_2 ’s motivation is based on prevention concerns.

In a sense, the same outcome is represented differently with respect to promotion and prevention concerns. When pursuing promotion concerns, one is focused on *gains*, while one's focus is on *losses*, when pursuing prevention concerns (Higgins, 1997; also cf. Markman, Baldwin, and Maddox, 2005; Higgins and Tykocinski, 1992). For instance, S_1 sees earning an A as a gain and failure to do so as a non-gain. By contrast, S_2 sees a failure to earn an A as a loss, while earning an A as a non-loss (i.e., a security).

Studies have shown that one undergoes different experiences when achieving or failing to achieve a goal, given that the goal is seen by the aforementioned, different concerns (Higgins, 1987; 1997). More precisely, since promotion concerns are related to advancement (i.e., the presence of positive outcomes), the promotion-related achievement of a goal will evoke emotions reflecting *pleasurable presence* such as elation and cheerfulness; the promotion-related failure of a goal, by contrast, will evoke emotions reflecting *painful absence* such as sadness and dejection (Molden, Lee, and Higgins, 2008: 170; also cf. J. Shah and Higgins, 2001). Similarly, since prevention concerns are related to security (i.e., the absence of negative outcomes), the prevention-related achievement of a goal will evoke emotions reflecting emotion reflecting *pleasurable absence* such as relaxation and quiescence; the prevention-related failure of a goal, by contrast, will evoke emotions reflecting *painful presence* such as nervousness and agitation (Molden, Lee, and Higgins, 2008: 170). Such results are intuitively plausible. Consider S_1 and S_2 . It seems plausible that S_1 should feel elated if earning an A, but dejected if failing to do so. Likewise, it seems plausible that S_2 should feel relaxed if earning an A, but nervous if failing to do so.

Now, a question naturally arises: what determines the activation of promotion and prevention concerns? According to Higgins et al., promotion concerns are usually or typically activated when the task, circumstance, goal, etc. at issue involves “gain-focused incentives (success brings rewards and failure brings the absence of rewards)” or when it cues “elated or dejected experiences” (Molden, Lee, and Higgins, 2008: 172; also cf. Higgins, 1997: 97). Likewise, prevention concerns are usually or typically activated when the task, circumstance, goal, etc. at issue involves “loss-focused incentives (success eliminates penalties and failure brings penalties)” or when it cues “relaxed or agitated experiences” (Molden, Lee, and Higgins, 2008: 172).

Let us call the way of seeing something with promotion concerns *promotion perspective* and the way of seeing something with prevention concerns *prevention perspective*. What is important, for the present purposes, is that different epistemic perspectives give rise to different judgment strategies when pursuing the epistemic goal, i.e., truth (cf. Higgins et al. 1994). With the promotion-epistemic perspective, one will adopt what Higgins et al. call *eager* judgment strategies when pursuing truth. That is, one will try to ensure the addition of truths and to ensure against overlooking truths (Molden, Lee, and Higgins, 2008: 176). With the prevention-epistemic perspective, one will adopt what Higgins et al. call *vigilant* judgment strategies when pursuing truth. That is, one will attempt to ensure the elimination of falsities or to ensure against the addition of falsities (Molden, Lee, and Higgins, 2008: 176). Using the terminology of signal detection theory, we may say that eager judgment strategies are *true positives seeking* and *false negatives averse*, while vigilant strategies are *true negatives seeking* and *false positive averse* (cf. Molden, Lee, and Higgins, 2008: 176).

It follows that when judging S's epistemic position with respect to p from the promotion-epistemic perspective, our focus is on whether or not S's epistemic position is *true-belief-approaching*, i.e., whether or not it is more probable than not that S's will believe in truths. By contrast, when judging S's epistemic position with respect to p from the prevention-epistemic perspective, our focus is on whether or not S's epistemic position is *false-belief-avoiding*, i.e., whether or not it is more probable than not that S will not believe in falsities.

Hence, judging from the promotion-epistemic perspective, the true-belief-approaching dimension of S's epistemic position plays a significant role in our judgments of whether or not S's epistemic position is knowledge-worthy, while judging from the prevention-epistemic perspective, the same role is played by the false-belief-avoiding dimension of S's epistemic position. In other words, using the terminology of signal detection theory, the promotion-epistemic perspective focuses on how well S's epistemic position is in obtaining true positives (i.e., true beliefs), while the prevention-epistemic perspective focuses on how well S's epistemic position is in avoiding false positives (i.e., false beliefs). Put in this way, the distinction between the promotion-epistemic perspective and the prevention-epistemic is clearly manifested, for it is well known that, in general, a procedure that is strong at obtaining true positives may not be strong at avoiding false positives, and *vice versa* (cf. Riggs, 2003). What is important for the present purposes is that these two epistemic perspectives are the core of the psychological mechanism that underlies the shift of our judgments of knowledge status regarding the stakes-shifting cases, or so I shall argue.

IV. The Perspective-Sensitive Account

In this section, I will argue that the shift of our judgments of the subject's knowledge status regarding the stakes-shifting cases is generated by the shift of our epistemic perspectives regarding such cases. More precisely, our judgments of the subject's possession of knowledge in the low-stakes cases are based on adopting the promotion-epistemic perspective, while our judgments of the subject's lack of knowledge in the high-stakes cases, the prevention-epistemic perspective. The shift of our epistemic perspectives regarding such cases is further affected by the pragmatic factors such as stakes in play. Call this view the *perspective-sensitive account*. On this view, pragmatic factors such as stakes determine our judgments of the satisfaction of the warrant condition regarding the stakes-shifting cases.

From a theoretical point of view, the perspective-sensitive account is a natural proposal to the problem we are facing. We have seen that, typically, our judgments of the satisfaction of the doxastic condition are not affected by pragmatic factors involved in the stakes-shifting cases. And since our judgments of the truth of the subject's belief also do not seem to vary across such cases, the most natural suggestion is thus that pragmatic factors somehow affect our epistemic perspectives, giving rise to the shift of judgments of knowledge status regarding such cases.

An obvious merit of the perspective-sensitive account is that it preserves intellectualism, which many have regarded as independently plausible. On this view, pragmatic factors have no direct impact on our judgments of knowledge

status; pragmatic factors have a bearing on our judgments of knowledge only via their impact on our epistemic perspectives. In other words, when evaluating whether one knows that *p* or not, only considerations regarding one's true belief and one's epistemic position with respect to *p* should be taken into consideration. The fact that our judgments regarding the subject's knowledge status vary across the stakes-shifting cases arises from the shift of our epistemic perspectives, which are influenced by pragmatic factors specified in such cases.

The perspective-sensitive account explains the shift of our judgments of knowledge regarding Low and High Stakes as follows: when first judging whether or not Hannah knows that the bank will be open tomorrow in Low Stakes, the promotion-epistemic perspective is adopted. Moreover, Low Stakes is so designed such that the strength in the true-belief-approaching dimension of Hannah's epistemic position is explicitly elaborated—Hannah's testimony indicates that the bank will very likely be open tomorrow, and so her belief that the bank will be open tomorrow is very likely to be true. Adopting the promotion-epistemic perspective, which focuses on the true-belief-approaching dimension of one's epistemic position, thus leads us to judge that Hannah knows that the bank will be open tomorrow. Another way to see this point is to note that the promotion-epistemic perspective generally leads to eager judgment strategies that, using the terminology of signal detection theory, strives for true positives (i.e., true beliefs). Since Hannah's epistemic position is quite strong from the true-positive-seeking point of view—Hannah's belief is very likely to be true based on her testimony—it is thus natural for us to judge that her epistemic position is knowledge-worthy.

When later judging whether or not Hannah knows that the bank will be open tomorrow in High Stakes, we shift from adopting the promotion-epistemic perspective to adopting the prevention-epistemic perspective (I will discuss how this shift of perspectives happens below). However, High Stakes is so designed such that the weakness in the false-belief-avoiding dimension of Hannah's epistemic position is explicitly elaborated—Hannah's testimony is in no position to rule out the possibility that the bank has changed its hours, and her belief is vulnerable to being false if the bank will not be open tomorrow. Adopting the prevention-epistemic perspective, which focuses on the false-belief-avoiding dimension of one's epistemic position, thus leads us to judge that Hannah does not know that the bank will be open tomorrow. Put in another way, the prevention-epistemic perspective generally leads to vigilant judgment strategies that, using the terminology of signal detection theory, strive for the elimination of false positives (i.e., false beliefs), and since Hannah's epistemic position is quite weak from a false-positive-averse point of view—Hannah would still hold the belief based on her testimony even if it were false—it is thus natural for us to judge that her epistemic position falls short of being knowledge-worthy.

That the low-stakes (high-stakes) cases indicate the strength (weakness) in the true-belief-approaching (false-belief-avoiding) dimension of the subject's epistemic position is true of DeRose's Bank Case (2009), Cohen's Airport Case (1999), and many other stakes-shifting cases in the literature. Interestingly, even if a high-stakes case does not explicitly mention that the subject is incapable of ruling out a certain possibility of error, we still tend to take, if only implicitly, the subject as being incapable of doing so. For instance, Ignorant

High Stakes does not explicitly mention that Hannah is incapable of ruling out the possibility that the bank has changed its hours during the past two weeks. However, it is because we implicitly take her to be incapable of doing so that we intuitively judge that she does not know in Ignorant High Stakes—it seems that we will judge that Hannah in fact knows if we take Hannah to be able to rule out the possibility that the bank will be open tomorrow. As a result, Ignorant High Stakes can be explained along the aforementioned line. That is, the weakness of Hannah's epistemic position—that Hannah is incapable of ruling out the possibility that the bank will not open tomorrow—is readily available to those who consider Ignorant High Stakes. It is thus natural for them to adopt the prevention-epistemic perspective and see Hannah's epistemic position as not knowledge-worthy.

What causes the shift of our epistemic perspectives regarding Low and High Stakes? On the perspective-sensitive account, the shift of our epistemic perspectives regarding such cases is determined by the pragmatic factors in play, i.e., that Hannah's stakes in whether or not the bank will be open tomorrow are low in Low Stakes but high in High Stakes. As far as I can tell, this point is supported by the psychological findings mentioned above. As noted, a promotion perspective is usually and typically activated when the circumstance at issue involves gain-focused incentives, while a preventive perspective is usually and typically activated by loss-focused incentives. It should be obvious that Low Stakes involves the gain-focused incentive that Hannah will be rewarded with not having to wait in a long line, if *The bank will be open tomorrow* is true. It is thus natural for us to adopt the promotion-epistemic perspective when evaluating Hannah's epistemic position in Low Stakes. High Stakes, by

contrast, involves the loss-focused incentive that Hannah's credits will suffer if *The bank will be open tomorrow* is false. It is thus natural for us to adopt the prevention-epistemic perspective when evaluating Hannah's epistemic position in High Stakes. The pragmatic factors involved—i.e., Hannah's stakes in whether or not the bank will be open tomorrow—thus play a crucial role in determining our epistemic perspective regarding the stakes-shifting cases.

That the low-stakes and high-stakes cases activate the promotion-epistemic and prevention-epistemic perspectives respectively is also supported by the fact that promotion and prevention perspectives in general are activated by emotions reflecting pleasurable presence (or painful absence) and emotions reflecting pleasurable absence (or painful presence). For the low-stakes cases typically cue emotions reflecting pleasurable presence (e.g., happiness) and painful absence (e.g., sadness), while the high-stakes cases typically cue emotions reflecting pleasurable absence (e.g., relaxation) and painful presence (e.g., agitation). For instance, when considering Low and High Stakes, it is natural to recognize or predict that Hannah will be happy (sad) for (not) skipping the long line in Low Stakes, and that she will be agitated (relaxed) if her credits are (not) harmed in High Stakes.

We still need to explain why, when Low and High Stakes are considered together, we tend to judge that Hannah does not know that the bank will be open tomorrow and, more generally, why our intuitive judgments of knowledge status regarding Low Stakes are dominated by our intuitive judgments of knowledge status regarding High Stakes in the manner mentioned above. Since the epistemic perspective we adopt determines our judgments of knowledge status regarding these cases, these phenomena indicate that the prevention-epistemic

perspective always triumphs over the promotion-epistemic perspective when the low-stakes and high-stakes cases are considered together. But why?

Notice that the facts that the promotion-epistemic (prevention-epistemic) perspective is adopted when considering the low-stakes (high-stakes) cases and that the pragmatic factors involved in the stakes-shifting cases give rise to the shift from adopting the promotion-epistemic perspective to adopting the prevention-epistemic perspective do not give us the desired verdicts that the prevention-epistemic perspective is always adopted when both Low and High Stakes are under consideration. For such facts, by themselves, do not prioritize the prevention-epistemic perspective over the promotion-epistemic perspective, or the other way around.

Still, I think the perspective-sensitive account is resourceful here. Firstly, the proponents of the perspective-sensitive account can take the seeming priority of the prevention-epistemic perspective over the promotion-epistemic perspective to rest on the fact that the stakes-shifting cases are usually so constructed such that the reward from believing truly in the low-stakes cases pales into insignificance when compared with the punishment of failing to avoid believing falsely in the high-stakes cases. For instance, Hannah will be rewarded with not having to wait in a long line for believing truly that the bank will be open tomorrow in Low Stakes. This reward apparently pales in comparison with her punishment—i.e., credit harming—for believing falsely that the bank will be open tomorrow in High Stakes. Since the potential harm of the punishment in High Stakes is more severe than the potential benefit of the reward in Low Stakes, the *intensity* of the emotions elicited by them is different. When the harm is avoided (fails to avoid) in High Stakes, the intensity of the feeling of

relaxation (agitation) is greater than the intensity of the feeling of happiness (sadness) evoked by earning (failing to earn) the reward in Low Stakes. We have seen that the emotions that the stakes-shifting cases cue play an important role in the activation of the correspondent epistemic perspectives, and since the intensity of relaxation (agitation) is greater than the intensity of happiness (sadness) in such cases, it is thus plausible to suggest that, in such cases, the prevention-epistemic perspective, which is generally activated by emotions such as relaxation or agitation, generally has priority over the promotion-epistemic perspective, which is generally activated by emotions such as happiness or sadness.

Secondly, the proponents of the perspective-sensitive account may appeal to the broadly valid phenomenon in human psychology known as the *negativity bias*. Numerous studies have shown that negative information, features, traits, etc. generally have a greater impact than do the positive ones on a variety of psychological aspects (cf. Baumeister, Bratslavsky, and Finkenauer, 2001). For instance, it is widely reported that negative information has a greater impact on the formation of impression, demands more information processing resources, is more likely to be remembered, etc. than does positive information. Paul Rozin and Edward B. Royzman (2001) usefully summarize four prominent ways that the negativity bias manifests itself: (a) *negative potency*, i.e., “the negative event is subjectively more potent and of higher salience than its positive counterpart” (Rozin and Royzman, 2001: 298); (b) *steeper negative gradients*, i.e., “negative events grow more rapidly in negativity as they are approached in space or time than do positive events” (Rozin and Royzman, 2001: 298); (c) *negativity dominance*, i.e., “the holistic perception and appraisal of integrated

negative and positive events (or objects, individuals, hedonic episodes, personality traits, etc.) is more negative than the algebraic sum of the subjective values of those individual entities” (Rozin and Royzman, 2001: 298-299); (d) *negative differentiation*, i.e., “negative stimuli are generally construed as more elaborate and differentiated than the corresponding positive stimuli” (Rozin and Royzman, 2001: 299).

One of the core features of the stakes-shifting case is that the low-stakes and high-stakes cases involve positive and negative results respectively. In general, the subject in the low-stakes cases will receive a (mild) reward for acting on a true belief, while the subject in the high-stakes cases will receive a (severe) punishment for acting on a false belief. We have noted that the emotion elicited by the negative result is typically more intense than the one elicited by the positive result. Even if this point is put aside, the fact that our cognition is generally biased toward negative information may explain why we tend to adopt the prevention-epistemic perspective when the low-stakes and high-stakes cases are considered jointly. The reason is that, other things being equal, negative information tends to dominate positive information when figuring in our general judgment. As noted, the positive result of the low-stakes cases tends to activate the promotion-epistemic perspective, while the negative result of the high-stakes cases, the prevention-epistemic perspective. The negativity bias thus implies that, other things being equal, the prevention-epistemic perspective is always adopted when the high-stakes and low-stakes cases are jointly under consideration. For instance, when Low and High Stakes are considered together, the negativity bias indicates that Hannah’s potential punishment will be more salient and have greater impact on our epistemic

perspective than Hannah's potential reward. Since gain-focused information such as reward tends to elicit the promotion-epistemic perspective, while loss-focused information such as punishment tend to elicit the prevention-epistemic perspective, it seems natural that our general bias toward negative information will lead us to adopt the prevention-epistemic perspective, when Low and High Stakes are jointly considered.

These two psychological effects can be complementary to each other. Perhaps both the intensity of the emotions and the negativity bias play some role in the formation of our judgments of knowledge status regarding the stakes-shifting cases. At any rate, I take it that the perspective-sensitive account has resources enough for predicting that our judgments of knowledge status regarding the high-stakes cases typically dominate our judgments of knowledge status regarding the low-stakes cases in the aforementioned sense.

V. Conclusion

In this paper, I have argued that our judgments of knowledge status regarding the stakes-shifting cases can be explained by the idea that pragmatic factors have a direct bearing on our judgments of the satisfaction of the warrant condition of knowledge. More precisely, pragmatic factors involved in such cases influence our judgments of S's epistemic position, via influencing our epistemic perspectives on S's epistemic position. Different perspectives are adopted when considering the low-stakes and high-stakes cases respectively, since the stakes-shifting cases are so constructed such that the strength in the true-belief-approaching dimension of S's epistemic position is explicitly mentioned

in the low-stakes cases, while in the high-stakes cases, it is the weakness in the false-belief-avoiding dimension of S's epistemic position that is emphasized. As a result, the promotion-epistemic perspective, which focuses on the true-belief-approaching dimension of S's epistemic position, is adopted when considering the low-stakes cases, while the prevention-epistemic perspective, which focuses on the false-belief-avoiding dimension of S's epistemic position, is adopted when considering the high-stakes cases. The shift from adopting the promotion-epistemic perspective to adopting the prevention-epistemic perspective gives rise to the intuitive judgments that S knows that p in the low-stakes cases, but not in the high-stakes ones.

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