The Puzzle of Skilled Behavior

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Consider an instance of your most skilled behavior
e.g. dancing, mountain biking, writing philosophy

1 While performing that skilled behavior, were you in control? Why or why not?

2 Would you describe your skilled behavior as an intentional action? Why or why not?
The Puzzle of Skilled Behavior is whether skilled behavior should count as intentional action.

Intentional actions are those behaviors properly attributed to an agent. But skilled behavior seems both more and less agent-involving than other behaviors.

Some say that skill should count, and that it is even necessary for intentional action (e.g. Mele and Moser 1994).

Others say that skill shouldn’t count, at least insofar as it proceeds without the involvement of the agent (e.g. Heuer 2014).
Example of ‘Choking’

Someone ‘choke’s when she is engaged in a skilled behavior but suddenly finds herself unable to continue. While it matters deeply to the agent that she continue, she cannot.
In my view, behavior should count as intentional action if it makes use of either of two competing forms of control: rational control or expert control. Skilled behavior uses expert control, and so should count as intentional action.
Outline

1. A Closer Look at Skilled Behavior
2. Some Possible Solutions
3. A New Solution
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Skilled Behavior

While attention is necessary for novice behavior, as one becomes more skilled in a behavior it uses less attention, until that behavior is fully automatic. At that point attention is no longer required for the performance of that behavior.

In other words, skill allows one to simultaneously perform the skilled behavior alongside other behaviors without much cost to either behavior (e.g. Schneider & Chein 2003)
Beilock et al. 2002

Mean distance from target (cm)

Pre-Test  Single-Task  Dual-Task
Putting Condition

NR  NF  ER  EF
“Whereas novices and the less-proficient performances of experts benefit from online attentional monitoring of step-by-step performance, high-level skill execution is harmed” (Beilock et al. 2002).
Summary

1. Attention away from a task hurts novices and helps experts (dual-task behavior).
2. Attention to a task helps novices and hurts experts (due to choking).
3. So attention may be necessary for novices, but not experts. Some argue that attention is necessary for intentional action (e.g. Wu). But experts seem to act intentionally. What gives?
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“The level of skill that one possesses is in direct proportion to the amount of control that one exerts over the performance of one’s own actions” (Fridland 2014)

Specifically, a gain in new abilities, such as automatic attention, leads to an overall gain in control. This approach leaves out the loss of control, exemplified by choking.
The Loss Approach

“A violinist or a surgeon controls the very precise movements of her fingers, but they are intentional only at a general level” (Heuer 2014)

The expert loses control only at the detailed level in this view, retaining control at higher levels. This approach leaves out gains in control, such as the new abilities of the expert, exemplified in dual-task behavior.
“The control found in skillful action is that by automatizing a host of basic features, the skilled agent opens up behavioral possibilities that were not available before” (Wu 2013)

This approach, in which loss of attention/control at one level leads to more attention/control at another, has a promising explanation of choking (Papineau’s ‘basic’ vs. ‘component’ actions). But it cannot explain why evidence points to an overall loss of attention for experts (e.g. Beilock et al. 2002; Poldrack et al. 2005)?
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Hierarchical Control

The puzzle of skilled behavior calls for us to distinguish two competing forms of control. These two types of control are both agent-involving, and so both count as contributing to intentional action.

**Rational control** allows for more flexibility and oversight, which might make us *feel more in control* of the behavior. This form of control may be required to select between and initiate skilled behaviors, but not to maintain them.

**Expert control** involves tasks that are more familiar to us, which might allow us to *feel more ownership* over them. To allow for this form of control, we simply have to prevent interruption by other thoughts or tasks.
Importantly, this approach rejects the dual-process theory. Hierarchical control can be understood as a “middle management” theory of control—instead of all behavior lying on a spectrum from automatic or reflexive behavior to rational or controlled behavior, we should introduce a secondary type of control, which leads to behavior that is both controlled and automatic, but neither rational nor reflexive.
The hierarchical control approach to control delivers the requisite tension that we see in the puzzle of skilled behavior while also showing how skilled behavior counts as intentional action.

Other work: our skilled behaviors belong to us, and so we can and should be held responsible for them, but not in the same way that we should be held responsible for those behaviors that are under our rational control.
Thank you.