James’s Account
of the
Phenomena and Conditions
of
Action
by
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This thesis is a study of the concept of action as it relates to the work of William James. Its chief contention is that for James, ‘action’ refers to all behaviour by which an organism pursues ends in order to adapt to its environment under such conditions that it experiences a feeling of effort. This claim is defended through an analysis of James’s psychological work, especially the subjects of volition, habituation, attention, and the feeling of effort. The understanding of each of these subjects is augmented by treating James’s work as a response to and continuation of the work of his predecessors. To that end, James’s work on each subject is compared and contrasted with the work of pertinent associationist psychologists, most notably James Mill, Wilhelm Wundt, Herbert Spencer, and Alexander Bain. A curious state of affairs emerges once James’s account of action is stripped of its nineteenth century vernacular and understood in its scientific context; namely, that James’s account of action is best understood as an early precursor to the currently prevailing event-causal account of Donald Davidson, with the same strengths and weaknesses. Consequences of this development are considered, along with potential ways that this could be used to bridge the gap between the analytic and pragmatic traditions.
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BIBLIOGRAPHY
ABBREVIATIONS

Bain, Alexander.

EW The Emotions and the Will
SI The Senses and the Intellect

Mill, James.

A1 Analysis of the Phenomena of the Human Mind, Volume 1
A2 Analysis of the Phenomena of the Human Mind, Volume 2

James, William.

BC Psychology: The Briefer Course
EP Essays in Psychology
PP1 The Principles of Psychology, Volume 1
PP2 The Principles of Psychology, Volume 2
TT Talks to Teachers and to Students on Some of Life's Ideals

Spencer, Herbert.

PB The Principles of Biology, Volume 1
PP1 The Principles of Psychology, Volume 1
PP2 The Principles of Psychology, Volume 2

Wundt, Wilhelm.

OP Outlines of Psychology
PPP Principles of Physiological Psychology, Volume 1
INTRODUCTION

When Ludwig Wittgenstein posed the question “what is left over when I subtract the fact that my arm goes up from the fact that I raise my arm?” in his Philosophical Investigations, he reignited a longstanding philosophical debate. Although some action theorists have looked to the work of the ancients or the moderns for inspiration, none has taken seriously the work of William James. This is a mistake, as James’s work is informed by over a century’s worth of psychologists grappling with the same question as Wittgenstein. By ignoring James and the rich and fascinating thread of intellectual development from which he emerged, action theorists have cut themselves off from a historically original and promising approach to the question of action.

The project in this thesis is to remedy this oversight in the scholarship by developing a response to the question “what does James mean by ‘action’?” The work most pertinent to this question is James’s psychology, as it is where James gives his most detailed treatments of topics typically of interest to action theorists. I will argue that for James, ‘action’ refers to all behaviour by which (1) an organism pursues ends, (2) in order to adapt to its environment, (3) under such conditions that it experiences a feeling of effort.

This thesis will take a different exegetical approach to James’s psychology than that of traditional James scholarship in that I treat James’s psychology as psychology rather than thinly-veiled metaphysics. What that traditional approach fails to acknowledge is that James was an active member of a vibrant and growing discipline that was just starting to emerge as a science in its own right. James was responding to and extending the work of a long line of psychologists in a manner that was well established by the time he began his research.

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Accordingly, whenever relevant I will refer to the work of James’s predecessors and contemporaries in order to better contextualize James’s work.

Just because James was responding to an established tradition does not mean that James was content with the state of that tradition. In chapter one, I consider four basic commitments that James held in his scientific approach to psychology, each of which is significant for James’s account of action. These four commitments are: his functional psychology; his commitment to evolution; his unique brand of introspection; and, his commitment to psychophysics. James’s functional psychology necessitates that a full account of action must articulate the ‘phenomena and conditions’ of action; that is, the subjective experience of action and the mental and physical conditions which enable that functionality. James’s commitment to evolution entails the view that the organism is forever embedded in an environment against which it must struggle and with which it must adapt. James’s unique brand of introspection reinforces the centrality of the subjective experience of action in James’s account of action, especially with respect to the feeling of effort. Lastly, James’s commitment to psychophysics entails that all accounts of the various processes operating in action give a detailed account of how those processes interact with the body and mind.

One of the consequences of James’s approach to psychology that will be significant throughout this project is the essentially active role that an organism plays in its lifelong pursuit of adapting to its environment. Most accounts prior to James held, either implicitly or explicitly, that the organism was essentially passive and reactionary. For example, while all accounts held that organisms pursued ends, many accounts held that the ends pursued were determined primarily in virtue of an organism’s physiology (e.g. pleasure). In contrast, James held that an organism’s subjective interests—determined by physiology, prior experience, and random variation—played a vital role in determining which ends of the many available would be pursued. The emphasis on the essential activity of the organism helped James resist the reductionist tendencies of his predecessors and contemporaries.
In chapter two, I examine the mechanism by which James thought organisms pursued ends: volition. James’s account of action had two distinguishing features. First, James rejected the traditional view that the qualitative difference in volitional behaviour was a ‘feeling of innervation’; that is, a feeling of the empowerment of actions by the efferent movement of energy towards one’s nerve endings. In contrast, James held that the qualitative difference in volitional behaviour was the necessary presence of an afferent ‘feeling of effort’. The feeling of effort results from bodily activity and is not the cause of it. The feeling of effort arises due to a disequilibrium that arises when an organism’s habits fail to mediate between the organism’s subjective interests and its environment. Second, James believed that habituation had an adaptive role to play in volition.

In chapter three, I discuss James’s account of attention. Attention and volition were closely related in nineteenth century psychology, James’s account included. However, James rejects what he calls the ‘effect-theory’ of attention that was prevalent in his day. The effect-theory states that attention is a causally inert effect of psychological and physiological processes. They usually claimed that attentional processes were coextensive with volitional processes, and that the processes were better understood as volitional. In place of the effect-theory, James posits a ‘cause-theory’ in which attention can be causally efficacious in some cases. These cases are those of ideational preparation wherein one experiences a feeling of effort. The feeling of effort is the result of conflicting ideas of what ends to pursue. This enables James to claim that volition is a form of attention: attention to an idea in certain conditions. Further, the relation of the feeling of effort to our subjective interests entails that the feeling of effort implies and is implied by awareness of our behaviour.

Chapter four is dedicated to the final element of the definition of action being defended in this project: the feeling of effort. I bring together the work done in the previous chapters in order to provide a concise description of the physiological basis for the feeling of effort and the function that it has in cognition. The function that the feeling of effort has in cognition is to
indicate when an organism’s habitual responses have failed to mediate between the organism’s subjective interests and its environment. The function that the feeling of effort has in cognition has several important consequences for James’s account of action. First, it assists in picking out which behaviours of the organism are part of an action. Second, it makes James’s account highly context-sensitive. Third, it sets the appropriate level of discourse about action at the level of conscious experience.

The fifth and final chapter is dedicated to three tasks. First, I provide a fuller treatment of the working definition of action that I had been defending in the previous chapters in order to satisfy James’s own requirements for an adequate account of a psychological phenomenon. Second, I provide a method by which we can ascribe action. Third, I consider the ways in which James’s account of action is helpful for contemporary action theory. The value of this project is not as an alternative to the standard view, or an improvement on it. The surprising result of this project is that James’s account of action is an early version of the currently prevailing event-causal view, with all of its strengths and weaknesses. However, there is great value in very fact that James’s account of action is an early version of the standard view. This has three benefits for contemporary action theorists: first, it makes James’s philosophical works more relevant and approachable; second, it enables access to a previously unavailable intellectual tradition; and third, it enables dialogue between the pragmatist and analytic traditions. Potential avenues for future research based on this project are considered in the conclusions.

I now turn to the consideration of the ways in which James’s scientific approach to psychology affects his account of action.
CHAPTER ONE

THE PRINCIPLES OF JAMES’S PSYCHOLOGY

In this dissertation, I will defend the claim that James believes that action refers to all behaviour whereby an organism pursues ends in order to adapt to its environment while under such conditions that the organism experiences a feeling of effort. To fully appreciate why James thought this and what it means, we need to examine some basic commitments that James held in his scientific approach to psychology. In this chapter, I will examine four such commitments: his functional psychology; his commitment to evolution; his unique brand of introspection; and, his commitment to psychophysics. When relevant, I will contrast James’s view with those of his predecessors and contemporaries.

Each of these commitments is significant for this project. James’s functional psychology orients our investigation away from the structure of action and towards the function that action has for those who have them. James’s commitment to evolution directs us to consider functions in terms of how they help the organism adapt to its environment. This makes an organism’s ends of central importance to James’s definition of action. James’s unique brand of introspection pays close attention to subjective experience and requires us to take such experience seriously when describing mental events. Finally, James’s appeal to psychophysics requires a particular approach to psychological issues but also requires minimal metaphysical commitments, allowing him to remain neutral with regard to broader metaphysical questions.

I will now turn to an examination of James’s functional psychology. As it will be relevant to James’s account of action throughout this project, I will begin with a discussion of the associationist psychological tradition against which James was arguing, and his arguments for why a functional approach is superior.
1.1 James’s Functional Psychology

1.1.1 The structuralist approach to psychology

James’s dissatisfaction with the psychology of his day motivates much of James’s writing; thus, understanding the position against which James was arguing is crucial to understanding James’s own position. The most prevalent school of thought at James’s time was Structuralism, founded primarily by E. B. Titchener. Titchener thought that the work of a psychologist had three elements. He thought that the psychologist “seeks (1) to analyse concrete (actual) mental experience into its simplest components, (2) to discover how these elements combine, what are the laws which govern their combination, and (3) to bring them into connection with their biological conditions.” There are two points to take from Titchener’s statement. First is that structuralist accounts are atomistic; they consider all “mental experience” to be configurations of the “simplest components” of that experience. Second is that the identification of the basic elements involved in a mental state and the determination of their particular configuration are a sufficient explanation of that mental state. In such an analysis, ‘consciousness’ or ‘the mind’ (depending on the psychologist) denoted the total configuration of all of the basic elements at a moment in time. Given that structuralist accounts were concerned about the contents of consciousness, they relied heavily on introspection as the primary source

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2 Throughout this project, ‘Structuralism’ (capitalized) will refer to the school of thought founded by Titchener, while ‘structuralism’ (not capitalized) will refer the approach to psychology.


of data about the mind, although it took a decidedly experimental character by the end of the nineteenth century.

Although Structuralism was not a formal school until Titchener, structuralist principles dominated psychological thought since the emergence of associationist psychology and were the standard view at the time of James. Psychologists from David Hartley to Herbert Spencer approached psychology along the same lines described by Titchener. The associationists all held some form of psychological atomism; Spencer saw this as a conceptual given for any discipline wishing the status of science. Given the success that other sciences had had with atomistic theories—biology had cells, chemistry had elements, physics had atoms—it was imperative for associationists to provide an account of the mind that followed a similar pattern. They expended the most energy identifying the means by which those psychological atoms aggregated. These are known collectively as ‘the laws of association’. They also were concerned, to varying degrees, with providing an adequate account of how our physiology was able to bring about mental states.

The associationist psychologists were also structuralist in that they held that a description of the basic units of consciousness and the laws of association involved in a mental state were sufficient as an explanation of that mental state. For example, James Mill argued that all objects of experience were the basic sensations of their properties aggregated through the ‘law of synchronic association’. Mill states: “From a stone I have had, synchronically, the sensation of colour, the sensation of hardness, the sensations of shape, and size, the sensation of weight. When the idea of one of these sensations occurs, the idea of all of them occur.” The stone is identical with the collection of the sensations of the stone and their means of association. Commonly observed features of our psychology (e.g. imagination) are understood

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5 Spencer, PP1, 149.

6 Mill, A1, 79.
as a specific ordering of sensations through the consistent use of the same laws of association.\footnote{Mill, A1, 239-240.}

Similar arguments are found throughout the works of the associationists, with the other most influential accounts being those of Hartley\footnote{See David Hartley, *Observations on Man, His Frame, His Duty, and His Expectations*, 6th ed., (London: Thomas Tegg and Son, 1834), 46ff.} and Spencer\footnote{See Spencer, PP1, 149ff.}.

James rejected the structuralist approach to psychology at a foundational level. As his reasons for doing so are crucial to understanding the definition of action given above, a detailed examination of that rejection is in order. James’s dissatisfaction with structuralism was primarily the result his rejection of psychological atomism, which he believed was an unsupported hypothesis.

1.1.2 Structuralism is irredeemably artificial

James’s argument against the structuralist approach to psychology is that the psychological atomism upon which it is based is an unsupported hypothesis. It is a hypothesis because it is not entailed by their accounts nor based on any empirical data, but is rather an \textit{a priori} starting point from which their account proceeds.\footnote{James, EP, 149.} That this is true of the associationist psychologists is undeniable; as stated above, Spencer even went so far as to consider it necessary to any science. James believed that subsequent psychological research had not demonstrated the truth of the hypothesis. Demonstrating the truth of psychological atomism would require it to be either supported by empirical evidence or for it to provide more explanatory power than its rival theories. James thought that it had failed on both counts and therefore ought to be abandoned by psychology.
James believes that there is insufficient empirical evidence supporting psychological atomism. He notes that assuming the existence of such entities implies that consciousness is discontinuous by nature, which in turn problematizes the continuous consciousness that is apparent in experience. Associationists would agree with this point; the desire to explain how consciousness has the appearance that it does despite having the nature that it does partially motivated their desire to articulate the laws of association. James argues that the “whole drift” of neurology calls into question the view that consciousness is discontinuous by nature. At every moment, the “brain always acts as a whole” such that “no part of it can be discharging without altering the tensions of all the other parts.” The brain acting as a whole ensures that “the actual contents of our minds are always representations of some kind of ensemble.” James argues “[w]hen I think the seven colours of the rainbow, I do not have seven thoughts of a colour, then a thought of a bow; that would be eight thoughts. What I have is just one thought of the whole object.” Further, James held that the impulse to describe the laws of association arose from an improper understanding of physiology; the aggregation of sensory data takes place in the nervous system, not in the mind. Therefore, the laws of association are thus functions of the brain rather than the means by which elementary units of consciousness aggregate. James concludes that psychological atomism was not supported by empirical

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11 James, EP, ibid.
12 James, EP, 152.
13 James, EP, ibid.
14 James, EP, ibid.
15 James, EP, 151.
16 James, PP1, 156.
evidence in the first instance and contradicts much of the evidence available and therefore ought to be rejected.

James believes that psychological atomism does not have greater explanatory power than its rivals due to the inextricable element of artificiality in its results. As stated above, James did not believe that the available empirical evidence supported psychological atomism. James argues that it is impossible to obtain such evidence because the elementary units of consciousness are an abstraction from lived experience, only existing post hoc and from a detached point of view; or, as James calls them, “artefacta.” It is true that in some cases it may be useful to describe certain portions of experience through the language of psychological atomism. However, the abstract nature of the concept makes it is a mistake to describe consciousness as such or to claim that one has accurately reflected the lived experience of mental life on that basis. To James, psychological atomists have made the same mistake as those who posit a soul or a transcendental ego: they have needlessly introduced a metaphysical entity that is not empirically justifiable. Therefore, psychological atomism does not grant a sufficient increase in explanatory power to justify positing it as a working hypothesis in the absence of empirical evidence.

To summarize, James argues that there is insufficient reason to justify positing psychological atomism as a working hypothesis. It not only contradicts the empirical evidence available at the time, but also is in principle empirically unverifiable because of the abstract nature of the concept. James thus rejects structuralism at a basic level. Given that it requires psychological atomism, there is no way that a structuralist account of mental life could adequately capture mental life. This compelled James to adopt a novel approach to psychology,

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18 James, EP, 150.
19 James, EP, ibid.
20 James, EP, 151-3.
the particulars of which are foundational to the present project. I shall now turn to an examination of James’s novel approach.

1.1.3 James’s functional approach to psychology

That James is adopting a novel approach to psychology is evident from the first sentence of the first page of *Principles*. James claims, “Psychology is the Science of Mental Life, both of its phenomena and of their conditions.”\(^{21}\) This suggests two features of James’s approach to psychology: first, that it is concerned with describing mental events as they occur to those who have them; second, that it is concerned with the conditions, both physical and mental, which give mental events their character.

The concern with describing mental events as they occur to those who have them is evident in James’s criticism of structuralism, given above. If a structuralist psychologist did not care to describe mental events in such terms, then they could reject James’s criticisms without much consequence.\(^{22}\) However, James argued that if a psychologist desired empirical evidence for his or her account of psychology, then there is nothing to commend structuralism and everything to commend his own approach.\(^{23}\) The concern with describing mental events as they occur gives subjective experience a place of importance in James’s psychology.

James was also concerned with describing the conditions under which mental phenomena occur and why they work as they do. A passage near the beginning of *Principles* typifies James’s approach to psychology. James expresses frustration with structuralist

\(^{21}\) James, PP1, 1.

\(^{22}\) Spencer, who thought that the majority of subjective experience was illusory, would likely take such a tack.

\(^{23}\) James, EP, 150.
accounts of memory because they fail to answer many questions that James sees as central to an adequate account of that phenomenon. James asks:

Why should this absolute god-given Faculty retain so much better the events of yesterday than those of last year, and, best of all, those of an hour ago? Why, again, in old age should its grasp of childhood’s events seem firmest? Why should illness and exhaustion enfeeble it? Why should repeating an experience strengthen our recollection of it? Why should drugs, fevers, asphyxia, and excitement resuscitate things long since forgotten? [...] Why should our memory cling more easily to the near than the remote? Why should it lose its grasp of proper sooner than of abstract names?²⁴

In short, structuralist accounts of memory do not answer the questions ‘why does it work the way that it does?’ and ‘what conditions are relevant to its operation?’²⁵ Advances in neurology had demonstrated conclusively that changes in the brain affect the operation and effectiveness of mental phenomena; for James, “the psychologist’s most interesting task” is to determine the conditions under which mental phenomena like memory work, and for what purpose.²⁶

It is now possible to articulate James’s approach to psychology. James believes that an adequate account of a mental phenomenon is comprised of three elements: first, a description

²⁴ James, PP1, 2-3.

²⁵ Structuralist accounts of memory tended to follow one of two tacks. The first, typified by Mill, is to determine what distinguishes a memory of e.g. a sensation from an immediate case of e.g. a sensation. Mill argues that in cases of the former there are additional associations present that are not present in cases of the latter. (Mill, A1, 321-3) Memory itself is a generic term for the associations unique to such cases. (Mill, A1, 318-21) The second tack, typified by Wundt, is to determine the mechanisms by which sensations become memories. (Wundt, OP, 265-7) Wundt posits that “memory ideas” and “memory associations” are purely psychological versions of the standard “mixed” associations governing sensation. (Wundt, OP, 266-7) James is correct to claim that structuralist accounts of memory are not concerned with the questions given above. Regardless of tack, answers to such questions are not to be found in the work of structuralist psychologists, including the most influential accounts (namely Bain, Thomas Brown, James Mill, Spencer, and Wundt).

²⁶ James, PP1, 3.
of the function that the mental phenomenon has for an organism, understood in terms of the effects for that organism's mental life; second, a description of the physical conditions under which that function is possible and how the function can be altered by changing conditions; and third, a faithful description of the subjective experience of that mental phenomenon. In sum, James's psychology is the psychology of the 'how' and 'why' of mental operations rather than the 'what' of mental elements. This approach came to be known as 'functional psychology' or 'functionalism' once refined by later psychologists such as John Dewey and James Rowland Angell.\(^27\)

\(^{27}\) At this point, it would be prudent to distinguish briefly between James's functionalism and the functionalism that currently dominates philosophy of mind.

Put briefly, there is very little in common between the two. As stated above, psychological functionalism developed as a response to over a century of failed structuralist thought. By examining our cognitive functions as opposed to the structure of the mind, we can produce an account of how mental events explain behaviour, and vice versa. Any mental element, be it a sensation, emotion, feeling, etc., had a place in a functional account of psychology if and only if that mental element had a function for cognition. That is, subjective experience can figure in an *explanans*.

On the other hand, philosophical functionalism grew out of a dissatisfaction with behaviorism's ability to adequately explain behaviour (behaviorism itself can be seen as psychological functionalism without introspection). Rather than producing an account of how mental events explain behaviour, philosophical functionalists wish to produce an account of the mind in terms of a series of inputs and outputs of behaviour. As it was with the behaviorists, subjective experience is barred from figuring into one's account of the mind. In other words, subjective experience can only figure in *explananda*.

For the remainder of this project, James's functionalism will be assumed, and the term 'functionalism' will always refer to functionalism in the *psychological* sense; that is, to functional psychology.
1.1.4 Consequences for this project

James’s functional approach to psychology has significant consequences for how this project is to proceed. Rather than providing an account of the structure of action by determining action’s most basic elements and how those elements aggregate, we must provide an account of the function of action by determining its ‘phenomena and conditions’. In terms of what we have described above, this means we must determine: the subjective experience of action; what action enables an organism to do that mere behaviour would not; the mental and physical conditions that enables that functionality; and, how changes in conditions affects that functionality. As we shall see, these themes will re-emerge throughout this chapter and the project as a whole. It would not be overstating the case to say that the rest of this chapter is possible because of James’s functional approach.

It is possible to satisfy one of those conditions at this point. James states throughout his psychological works that action is the means by which consciousness pursues ends; this is its function in cognition.28 This necessitates an investigation into the means by which James believes an organism pursues ends. James believes this to be volition, which is consequently the second chapter of this project.

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28 Examples of claims along such lines may be found in James, BC, 60-1, 283-4; EP, 35, 44n, 54, 86-90, 111-115; PP1, 7-8, 141-2, 482; PP2, 501, 564, 579-580; TT, 11-12. This list is not exhaustive, but is meant to give an impression about how widespread this claim was in James’s work.

1.2 James’s Commitment to Evolution

As suggested by the definition of action given at the beginning of this chapter, not all pursuits are relevant to action, but rather only those that are pursued in order to adapt to the environment. This qualification is a direct result of the second way in which James’s scientific approach to psychology differed from that of his predecessors; namely, his commitment to Darwinian evolution. While it is not the case that James was the first psychologist to accept evolutionary theory, he is widely understood to be to be the first major figure to have evolution as an explanatory principle in psychology.\(^{30}\) James argues that mental phenomena, e.g. consciousness, would only have survived the process of natural selection if it presented some sort of evolutionary advantage to the organisms that possess it.\(^ {31}\) The evolutionary advantage would be a superior ability to adapt to the environment, which Darwin portrayed as a constant “struggle for existence.”\(^ {32}\) This entails some degree of causal efficacy on the part of mental phenomena; they would be unable to effect adaptation if they were causally inefficacious. While James does not wish to engage in weighty metaphysical discussion on the nature of causality,

\(^{30}\) See David Hothersall, *History of Psychology*, 2d. ed. (New York: McGraw-Hill, Inc., 1990), 284; Boring, 243; James Mark Baldwin, *History of Psychology: A Sketch and an Interpretation* (2 vols.), Volume 2, (London: Watts & Co., 1913), 115 (with respect to emotions). The first psychologist to explicitly incorporate evolution (albeit Lamarckian evolution) into his system is Spencer. Spencer believed that the “doctrine of evolution” was implied by the account of psychology in the 1855 first edition of his *Principles of Psychology* (“Preface to the Second Edition”) which he then made explicit in the 1870 second edition (“Preface to the Second Edition”). Thus for Spencer and all the others in the generation preceding James, evolution was something to which they had to adapt their theories. For James, evolution was a basic starting point. I believe this to be more of an accident of history than anything special on James’s part.

\(^{31}\) James, EP, 41.

he does believe that this is sufficient grounds to reject epiphenomenalism (‘The Automaton Theory’, as he calls it).  

The commitment to Darwinian evolution has one further consequence to James’s view of the organism; namely, James views the organism as essentially active in its engagement with the environment. As we shall see in the following chapter, most psychologists believed that organisms were essentially reactive and were passive receptors of experience. James argues that this ignores the role that subjective interest plays in determining what experiences an organism will have. All organisms will have their own idiosyncratic wants and needs at any given moment of their lives based on their individual constitutions and the particular exigencies of their situations; the environment alone is not wholly responsible for the differences in experiences between two organisms. Given that the organism is embedded in an environment against which it struggles constantly, the ability to determine which ends to pursue or which aspects of the environment are salient to pursuing those ends is of the utmost importance. James believed that mental phenomena could not serve an evolutionary purpose if it were the case that the organism possessing those mental phenomena were passive in the pursuit of ends.

### 1.2.1 Consequences for this project

James’s commitment to Darwinian evolution orients the present project substantially. First, it clarifies the qualification present in the definition of action presented above: the ends relevant to actions are those that effect adaptation to the environment. James believed that

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33 James, EP, 41.

34 See James, EP, 18-19.

35 James, EP, 19-21.

36 James, EP, 19.
adaptation was an ongoing project for the organism and primarily achieved through the
development of habits. The process of habituation will be discussed in chapter two with respect
to the function that it has in the process of volition. Second, James believed that the organism
was an essentially active part of the process of adaptation through the pursuit of some ends
over others based on its subjective interests. James believed that the mental operation
responsible for determining the ends that we pursue, or what aspects of the environment are
salient with respect to the ends that we are pursuing, is attention. The mental operation of
attention will be discussed in chapter three by way of an analysis of James’s surprising claim
that volition is reducible to attention.

1.3 James’s Unique Brand of Introspection

The third way in which James’s approach to psychology differs from that of his
predecessors and contemporaries is the unique brand of introspection that James uses while
psychologizing. Introspection was a hotly debated topic in the nineteenth century, and
understanding the debate is illuminating for situating James in the tradition. I will therefore first
provide a brief discussion of what introspection was for associationist psychologists, then
turning to a discussion of the main debate, and finally how James responded to that debate.

1.3.1 Associationist introspection

For associationist psychologists, introspection was the act of the mind observing its own
operations. It was generally used to illuminate the structure of experience. This is reflected in
one of J. S. Mill’s notes on his father’s *Analysis*. J. S. Mill characterizes the purpose of
introspection as being to observe “the relation of our thoughts to themselves, and with the
determining circumstances of the moment.”37 He clarifies that this means the ways in which

37 Mill, A1, 77.
ideas associate in order to generate new and more complex thoughts, and the physiological conditions under which such association takes place, respectively. The task of a psychologist was thus to provide an account of how mental states related to physical states, which usually took the form of an investigation into how ideas structured themselves in order to reflect the external world. For example, Francis Galton would take walks around London, taking notice of the different acts of consciousness that would occur during that activity and based his psychology on those observations. The associationist psychologists also used introspection to catalog the contents of consciousness. Associationist psychologists introspected a list of mental phenomena—emotional states, sexual desire, aesthetic reactions, etc.—and built their accounts of psychology on that basis. Invariably, each mental state was classified and characterized with respect to its structure, and usually in terms of specifying the exact configuration of more simple mental states required for the more complex mental states to arise. Consider again Mill’s account of a stone given above. Any mental state associated with a particular stone is characterized by the association of the particular instantiation of its less complex mental states such as its shape, weight, etc. given above; in the language used above, what elementary units of consciousness are present and how they are being associated. Mill uses the same approach for even more complex mental states such as the love that a parent has for her child. The child is an object of experience in the same way that a rock is an object.

38 Mill, A1, 77-78.
39 Boring, 384.
40 Boring, 484.
41 Boring, 384.
42 Boring, 384-6.
43 See section 1.1.1, above.
of experience: It is a set of less complex mental states (its properties) aggregated through the laws of association. Some of those properties will cause the parent either pleasure or pain.\textsuperscript{45} A parent has the mental state of ‘loving one’s child’ if the structure of the parent’s consciousness when the parent thinks of the child is such that, when all of the associations are accounted for, the parent receives more pleasure than pain.\textsuperscript{46} The means by which Mill completes his analysis is introspective in the sense given above: he observes what happens when he thinks of his children in order to determine the relation of the thoughts of his children (e.g. their properties) with other thoughts (the pleasure and pain associated with those properties).\textsuperscript{47} Mill supplies no empirical evidence to back his claims: he does not discuss the bodily processes responsible for the mental state; he does not give any evidence that such a comparison between pleasant and painful associations actually occurs for anyone other than himself. He reflects on his own experience and fits it into the language of associationism. Such was the case of all the associationist psychologists for all topics.\textsuperscript{48}

1.3.2 Comte’s challenge and Brentano’s response

a. Comte against introspection

The use of introspection by associationist psychologists was not without its detractors. The most notable of these was Auguste Comte, who claimed that introspection—or, in his words, ‘interior observation’—could never yield any positive results and therefore any

\textsuperscript{45} Mill, A2, ibid.

\textsuperscript{46} Mill, A2, ibid.

\textsuperscript{47} Mill, A2, ibid.

\textsuperscript{48} The introspection of Wundt and Titchener differed from that of the associationist psychologists and shall be discussed later in this chapter.
intellectual endeavour based upon it could never be considered a proper science. Comte had two main arguments for this claim: first, that the products of introspection is necessarily private and thus unsuitable as scientific evidence; second, that introspection never truly captures the phenomenon being introspected.

Comte believed that the products of introspection were necessarily private because the operations of the mind vary from individual to individual in significant ways. He argues that an introspective method

would extremely restrict the study of the understanding, by necessarily limiting it to the case of adult and healthy Man, without any hope of illustrating this difficult doctrine by any comparison of different ages, or consideration of pathological states, which yet were unanimously recognized as indispensable auxiliaries in the simplest researches about Man.

Comte’s argument is that if mental operations are dependent on one’s physical constitution or other factors such as one’s prior education or station in life, then it is unreasonable to expect that whatever one discovers by way of the inner observation of one’s mental operations would be universalizable within our own species, let alone allowing for one to engage in comparative psychology with other species. The greatest proof that Comte had for this claim was that “Internal observation’ gives almost as many divergent results as there are individuals who think they practice it.”

Comte believed that introspection never truly captures the phenomenon being introspected because it is always retrospective. He notes that “the affective functions [of the mind], and yet more the intellectual, exhibit in the latter respect this particular characteristic,—


50 Comte, 383.

51 James, PP1, 188.
that they can not be observed during their operation, but only in their results…"\textsuperscript{52} Reflecting on what it is like to be sad is not the same thing as being sad. Any introspective analysis of sadness on that basis would not be truly capturing the phenomenon of sadness. Comte believes that psychologists had failed to notice the distortion that that introspection had on what was being introspected.\textsuperscript{53} This leaves Comte to reject introspection as a method in its entirety. Comte argues that there are two ways in which one could provide a positive analysis of mental events: first, through an examination of the organs responsible for those events; second, through an analysis of their effects.\textsuperscript{54} Neither of those two pursuits are psychology. The former is more properly understood as physiology; the latter, “natural history.”\textsuperscript{55} If introspection fails to capture the mental event as it occurs, it is unnecessary.

\textbf{b. Brentano’s defence of inner perception}

Franz Brentano provided the most sustained defence of introspection against Comte’s criticisms. Brentano distinguishes between two forms of introspection: inner observation and inner perception, respectively.

Brentano describes ‘inner observation’ as being the attempt to perceive mental events in a similar manner in which one would perceive external objects.\textsuperscript{56} Inner observation takes a detached, objective point of view towards the mental object being observed.\textsuperscript{57} Brentano grants Comte’s arguments in their entirety with respect to inner observation. In terms of the private

\textsuperscript{52} Comte, 383.
\textsuperscript{53} Comte, ibid.
\textsuperscript{54} Comte, 382.
\textsuperscript{55} Comte, 383.
\textsuperscript{56} Brentano, 29-30.
\textsuperscript{57} Brentano, 30.
nature of the results of introspection, Brentano writes: “[j]ust as the object of observation is unique […], so the observer himself is unique, and no one else is in a position to check his observations.” 58 That introspective observations are not publically available is a problem for psychology if it is trying to be a positive science in the same manner as those disciplines that use external observation. No matter what comparative or analytical tools one uses, reports of inner observation are never as trustworthy as those of external observation. Brentano believes this in part because he agrees with Comte that inner observation distorts what is being observed. He argues that inner observation is largely accomplished through memory, which can be manipulated in various ways and is prone to error. 59 Brentano concedes that Comte “has rightly recognized” the impossibility of inner observation, and attributes to Comte the widespread admission to this throughout psychology. 60 However, Brentano believed that Comte’s arguments are only partially true because of his failure to distinguish between inner observation and inner perception. I shall now turn my attention to inner perception.

Brentano describes ‘inner perception’ as the experience of a mental state as one is experiencing it. 61 Unlike inner observation, which is retroactive and “directs our full attention to the phenomenon in order to apprehend it fully,” inner perception requires no such direction; indeed, elsewhere Brentano claims that inner perception is “immediately evident.” 63 Comte’s second argument fails against inner perception as one cannot be wrong about the mental state that one is experiencing as one is experiencing it; that is, if one believes that one is angry, one

58 Brentano, 38.
59 Brentano, 36.
60 Brentano, 32-3.
61 Brentano, 29.
62 Brentano, 30.
63 Brentano, 147.
cannot be wrong about that, so long as one is reporting the mental state as one is in that mental state.⁶⁴ He further argues that memory can be a trustworthy guide to previous mental experiences if there is not much time between when one had the experience and when one is reflecting on that experience.⁶⁵ Comte’s first argument fails because “[i]n addition to the direct perception of our own mental phenomena we have an indirect knowledge of the mental phenomenon of others,” primarily through others reporting to have certain mental phenomena while engaging in behaviour typical of oneself when one would consider oneself as having the same mental phenomena.⁶⁶ Brentano thus argues that psychology must proceed by inner perception, taken together with “the contemplation of previous mental experiences in memory” and the “expression of the mental life of other persons.”⁶⁷

c. Wundt: making introspection respectable

The debate between Comte and Brentano had a profound effect on psychology, most notably through the work of Wundt and Titchener. Wundt accepted Comte’s arguments against the associationist psychologists, but against Brentano thought that the issue was that of execution. Wundt believed that by minimizing the amount of time between when a test subject experiences a stimulus and when s/he reports a response, he could also minimalize the potential for error in those reports.⁶⁸ Further, Wundt believed that people could be trained to be better at introspection, and those people were the only ones whose introspective reports Wundt

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⁶⁴ Brentano, 145.
⁶⁵ Brentano, 34.
⁶⁶ Brentano, 38.
⁶⁷ Brentano, 43.
⁶⁸ Hothersall, 99-100.
Wundt set up the first formal psychology labs in order to more effectively undertake this task, in the process making him, as Boring notes, “the first man who without reservations is properly called a psychologist.” Wundt’s pupil Titchener carried the tradition to the United States, along with translating Wundt’s works into English. These translations, along with Titchener’s own work, contributed significantly to the rise of experimental psychology. The debate between Comte and Brentano was thus highly influential in the history of psychology.

### 1.3.3 James’s response to the debate

All psychologists had to provide their response to the Comte-Brentano debate, James included. I shall now move to a discussion of where James came down in that debate and the consequences that his response has for the present project. As we shall see, James agrees with both Comte and Brentano (despite claims to the contrary with respect to the latter), but rejects Wundt’s solution, believing it to lead to the same issue that traditional introspection had led: the inability to account for relations between things. I shall now turn to James’s response to the Comte-Brentano debate.

#### a. Response to Comte

##### i. Introspection distorts observation

James grants without reservation that introspection distorts that which is being observed. James argues that “no subjective state, whilst present, is its own object; its object is always something else,” and that the naming or classification of a feeling as a certain type of feeling in

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69 Hothersall, 100-1.

70 Boring, 316.

71 Boring, 332.
no way resembles the feeling as it occurred.\textsuperscript{72} James goes further than Comte by arguing that there are certain subjective states—namely, the feelings of relation described below—that will never be accurately reported retrospectively. James writes that

As a snowflake caught in the warm hand is no longer a flake but a drop, so, instead of catching the feeling of relation moving to its term, we find we have caught some substantive thing, usually the last word we were pronouncing, statically taken, and with its function, tendency and particular meaning in the sentence quite evaporated. The attempt at introspective analysis in these cases is in fact like seizing a spinning top to catch its motion, or trying to turn up the gas quickly enough to see how the darkness looks.\textsuperscript{73}

James thought that the attempts by Wundt and Titchener to make their respective introspective analyses more precise ought to be understood as merely getting better at turning the gas up more quickly. No matter how well they could perfect the process of introspection, or how rigorous the standards that they impose on those who engage in it, they will always misrepresent a substantial aspect of our experience due to the inherent nature of the process.

\textit{ii. Unable to account for relations}

As mentioned briefly above, the substantial aspect of our experience that the introspective method used by associationist psychologists will always misrepresent is the “feelings of relation” between things, also referred to as the “halo” or “penumbra” that “surrounds and escorts” substantive objects of experience.\textsuperscript{74} Some examples of these feelings of relation would be “the permanent consciousness of whither our thought is going,” or “the vague perception that all the words we hear belong to the same language,” or the “shock of incongruity” we feel when someone in a formal setting uses casual language.\textsuperscript{75} In all cases,

\begin{itemize}
\item \textsuperscript{72} James, EP, 142-3.
\item \textsuperscript{73} James, EP, 144.
\item \textsuperscript{74} James, EP, 158.
\item \textsuperscript{75} James, EP, 158-161.
\end{itemize}
there is a feeling that is distinct from the particular sensations one is having and relates more to the mode in which they are being presented.\textsuperscript{76}

James believed that was due to Hume’s influence on the tradition. For Hume, if an idea could not be traced to an antecedent, that idea was empty.\textsuperscript{77} The term ‘causality’ is empty because although we do have the concept of causality, it does not correspond to any particular impression that we have; indeed, we only have impressions for objects existing in certain states at certain times. While James acknowledges that such parsimony had done wonders for denying “the existence of a mob of abstract entities, principles and forces, in whose favor no other evidence than [their having a name] could be brought up,” they “have said nothing of the obverse error, which in psychology is just as bad, the error, namely, of supposing that where there is no name no entity can exist.”\textsuperscript{78} This error had led most empirical psychologists to only count as ideas “only such representations as have objects that can be brought to the distinct focus of attention and there stably held in view.”\textsuperscript{79} James argues that while there may be no immediate impression that corresponds to ideas of relation, there are particular “modification[s] of our subjective feeling” that correspond to the “awareness of each objective relation, and is the condition of its being known.”\textsuperscript{80} In less oblique terms, James is arguing that there is a distinct feeling that is associated with the experience of a relation between objects that is the basis upon which we know that the relation holds, despite the fact that there is no sensory impression that could account for that feeling. For example, when faced with a choice to either ‘take the high road’ or ‘take the low road’, the sense of exclusivity—that one cannot both take the high

\textsuperscript{76} James, EP, 156.
\textsuperscript{77} James, EP, 145.
\textsuperscript{78} James, EP, 146.
\textsuperscript{79} James, EP, 145.
\textsuperscript{80} James, EP, ibid.
road and take the low road—is a felt relation that if one did not feel, one would not be aware of the choice.81 The introspective method of the empiricist cannot account for these felt relations, and thus is unable to provide a proper account of psychology.82

81 C.f. the chapter on volition, below.
82 James is right to identify Hume as the source of this issue with associationist thought, but for the wrong reason. Hume does acknowledge that such feelings exist, and that they play a role in our psychological lives. Where Hume differs from James is that Hume does not believe that these feelings express any real relation to the extra-mental world; rather, the feelings only express certain features of the mental constitution of human beings. (David Hume, An Enquiry Concerning Human Understanding (Indianapolis: Hackett Publishing Company, 1977), 42-3) In the case of causality, repeatedly experiencing the same sequence of events between two elements of our experience results in the thought of one leading to the thought of the other, an operation of the mind, rather than the objects themselves, that occurs because of how the human mind works. (Hume, Enquiry, 50) The feeling of constant conjunction only indicates that the person in question has had experience of a certain kind rather than the world is a certain way. (Hume, Enquiry, 51) This introduces some skepticism about the possibility of knowledge about the external world itself, as the impression/idea dichotomy rests on a causal relationship of the kind that Hume says we are incapable of having knowledge about. (Hume, Enquiry, 104-5) James, on the other hand, does believe that such feelings have some epistemic worth. As we saw earlier in this chapter, a foundational aspect of James’s thought was his commitment to Darwinian evolution. The consequence of that was that organisms are forever embedded within an environment with which it must always interact and to which it must adapt. The capacity to feel certain relations evolved as an adaptation to the environment that facilitated more effective interaction with it. Thus, if something is a necessary feature of our thought, as Hume concedes that the feeling of constant conjunction is, then it does tell us something about the world; namely, that the world exists in such a way that it is more beneficial for an organism to have those feelings than to not have those feelings. In short, since how we experience the world was dictated by a long process of engaging with the world, that we experience the world in a certain way can reveal something about the world itself.
iii. The proper role of introspection

Despite agreeing with Comte’s criticisms of introspection and identifying a significant way in which it will always be deficient, James was not prepared to concede that introspection was worthless; indeed, he thought that “Introspective Observation is what we have to rely on first and foremost and always.”83 James notes that the “difficulty is simply that of all observation of whatever kind.”84 James writes: “Something is before us; we do our best to tell what it is, but in spite of our good will we may go astray, and give a description more applicable to some other sort of thing.”85 James argued that what will decide whose conception of psychological phenomena will carry the day rests on reaching a consensus within a scientific community of observers. Such a system “is the best guarantee the psychologist can give for the soundness of any particular psychologic observation which he may report. Such a system we ourselves must strive, as far as may be, to attain.”86

83 James, PP1, 185. Note that James’s use of the phrase ‘introspective observation’ should not be confused with Brentano’s term ‘inner observation’. While it is beyond the scope of the current project to fully explore this similarity, the work done in this chapter should establish that they do not refer to the same thing; indeed, James’s ‘introspective observation’ may refer to something like the ultimate method of Brentano—inner perception plus memory plus reports from others.

84 James, PP1, 191.

85 James, PP1, 191-2.

86 James, PP1, 192. Unfortunately, James does not provide many details about what such a system would entail, or how psychology would progress towards attaining such a system. James does articulate three different methods used in psychology—the introspective method, the experimental method, and the comparative method, respectively,—and describes how each works and what they entail, but does not comment on how they can be meaningfully used together to arrive at an adequate system of psychology. (See James, PP1, 184-194.) Duane P. Schultz and Sydney Ellen Schultz note the
b. Rejection of Brentano

As we have seen, James accepts Comte's arguments against all forms of introspection—including the revised form of it offered by Wundt—but rejects the conclusion that it is useless. His own form of it is very similar to that suggested by Brentano, although James does not realize that this is the case. James's discussion of Brentano is brief, dismissive, and demonstrates a deep-seated misunderstanding of Brentano's point. Despite this weakness in James's argument, a brief explanation of it is necessary for situating James in the debate.

James reports that, in response to Comte's critiques, Brentano went to the opposite extreme and claimed that introspective analysis was immediate and infallible. Against this James has two points. First, while James grants that Brentano may have a point in the case of strong feelings, he noted that "about weaker feelings, and about the relations to each other of all feelings, we find ourselves in continual error and uncertainty...," thus making introspection's infallibility unbelievable. Examples of introspection's fallibility abound: we often misunderstand our own motivations; we may not be able to accurately identify the source of negative emotions such as anxiety or sadness; we are woefully inaccurate in our evaluation of the amount of happiness that something will contribute to our lives; and so on. Second, James argued that even the act of reporting the mental state as it is happening sufficiently modifies the mental state that one is in such that one is no longer reporting the mental state that one is in. Reporting use of multiple methods was a distinctive feature of functional psychology, with previous approaches to psychology being chiefly characterized by the single method used (Duane P. Schultz and Sydney Ellen Schultz, A History of Modern Psychology 9th ed. (Belmont, CA: Thompson-Wadsworth, 2008), 119). By recommending that all three methods be used in conjunction, James was thus offering a revolutionary step forward, despite being unable to articulate what such a system would look like.

87 James, PP1, 191.

88 James, PP1, ibid.
that one is angry takes one out of the mental state of “being-angry” and, minimally, into the state of “being-angry-and-describing-the-anger-to-someone-not-experiencing-the-anger.” James’s criticisms of Brentano are a caricature of his position, especially considering that, as we shall see, James’s own position is remarkably close to that of Brentano.

James’s response to the Comte-Brentano debate was unique. James clearly thinks that Comte did not go far enough in diagnosing the problem, and extends Comte’s points to include the revised forms of introspection offered by the experimental psychologists such as Wundt and Titchener. However, he rejects Comte’s conclusion that introspection is useless, believing that it is the first step in any psychological endeavour. He also rejects Brentano’s position, which he believes to be that introspection is immediate and infallible, despite the fact that Brentano did not hold such a position. I shall now turn to a discussion of James’s form of introspection.

c. James’s brand of introspection

i. Function, not structure

The main difference between James’s form of introspection and that of other introspectionists is not in what introspection is; indeed, for James it is also the act of the mind

89 James, PP1, 190.

90 While it is beyond the scope of the present project to fully articulate this point, I must make note that James may not be the culprit in this regard. The second edition of Brentano’s Psychology from an Empirical Standpoint was printed in 1911, thirty years after the original and twenty-one years after James’s Principles. In the foreword to the 1911 edition Brentano notes that his views on the intentionality of concepts has changed, and along with it his views on inner observation and perception. (xvii) It is unclear exactly how the material changed, as a copy of the original edition may not be extant. That said, the pertinent section of that book (145ff.) are not flagged as having been sections that have been changed, so it is still possible that James simply misinterpreted or misunderstood Brentano’s work.
surveying its contents. The main difference is over introspection’s *function*. As noted above, other psychologists used introspection to determine the laws of association or to catalogue acts of consciousness in order to articulate the mind’s structure. For James, introspection gives insight into what we mean when we say that we are experiencing a particular mental state. As noted above, other psychologists used introspection to determine the laws of association or to catalogue acts of consciousness in order to articulate the mind’s structure. For James, introspection gives insight into what we mean when we say that we are experiencing a particular mental state.91 As we have seen throughout this chapter, for James this means examining the function that the mental state plays in cognition.92 By introspecting contents, the associationists had introspected the wrong part of mental life. In contrast, James limits introspection to the subjective experience of mental operations.

A proper form of introspection must also pay attention to how one approaches the act of introspection. James believed that the improper use of introspection leads to what he calls ‘the psychologist’s fallacy’. While there are two versions of the fallacy, only the second is relevant, being “the assumption that the mental state studied must be conscious of itself as the psychologist is conscious of it.”93 James frames the issue in the following manner:

> The psychologist, studying this question, stands, as afore-said, outside of the cognitive state-of-consciousness he is analyzing, and compares it with its supposed object, which he thinks he really knows. Let us call the object as known to him "the reality". Then the question is: Is the reality directly present to the feeling under observation, or is it represented by a mental substitute? And, if the latter: Is the representative like the reality, a copy of it, or is it not?94

James argues that the psychologist is always studying a mental state that is not her current mental state. The mental state being studied is thus an object of experience for the psychologist. Objects of experience serve a different function in cognition than mental states and are subject to different mental operations.95 As an object of experience, one’s prior history,

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91 James, PP1, 190-1.

92 See section 1.1.3, above.

93 James, PP1, 197.

94 James, EP, 162.

95 James, EP, 161.
habits, and subjective interests can modify it.\footnote{James, EP, 161-2.} Thus, the difference between a mental state and a psychologist’s report of that mental state is that “[w]hat the thought sees is only its own object; what the psychologist sees is the thought’s object, plus the thought itself, plus possibly all the rest of the world.”\footnote{James, PP1, 197.} This ensures that whatever conception a psychologist provides to explain a mental phenomenon, it will never be able to capture fully the mental phenomenon that it is attempting to explain except indirectly, in the same way that the sentence “I write with steel pens” does not resemble the act of writing with a steel pen but can represent it.\footnote{James, EP, 22.} This is as an extension of Comte and Brentano’s arguments and is aimed squarely at Wundt, who held that with a sufficient number of trained introspectors, psychological accounts can get beyond representation and can get to the ‘reality directly present’\footnote{Boring, 336-7.}. In other words, an objective standpoint can never faithfully represent subjective experience, no matter which methods one employs.

The psychologist’s fallacy is a criticism of how the associationists had confused standpoints when examining mental states, particularly the confusion of subjective and objective standpoints. From a subjective standpoint, any mental state is just what it is like to experience that mental state in its totality, of which one feeling or one topic may be predominant. But the object of thought from a subjective standpoint is “neither more nor less than all that the thought thinks, exactly as the thought thinks it, however complicated the matter, and however symbolic the manner of the thinking may be.”\footnote{James, PP1, 276.} As we have seen earlier in this chapter, James held that experience is a unity and is not comprised of countless micro-experiences, as the psychological

\textsuperscript{96} James, EP, 161-2.  
\textsuperscript{97} James, PP1, 197.  
\textsuperscript{98} James, EP, 22.  
\textsuperscript{99} Boring, 336-7.  
\textsuperscript{100} James, PP1, 276.
atomists held. An objective standpoint can divide the unity into a plurality, and can treat the various aspects of an experience as separate from each other. While this could be useful, it irrevocably distorts the experience under study. Further, one must note that not all of a person’s treatment of her own feelings is subjective. In the cases of reflection on one’s own actions, one is taking one’s past thought as an object, and is just as prone to committing the psychologist’s fallacy as an external observer. Thus, while the psychologist’s fallacy is seen most clearly in the work of psychologists who do not pay close enough attention to the role that standpoint plays in the observation of mental events (such as the associationists, as described above), it is a problem that is far more widespread.

ii. Jamesean Introspection

Another feature of a proper form of introspection for James is that introspection is used as a benchmark against which accounts of psychology are to be tested. For James, introspection reveals in some way what it is like to have mental events of a certain kind. He thus accepts Brentano’s point that subjective experience must be the basis of one’s account of psychology. Since the difficulties posed by introspection are merely the same difficulties one experiences in any form of observation, what is needed is a form of introspection that acknowledges the difficulties and provides a means to overcome them. James does not believe that the efforts of those like Wundt to improve the means by which introspection is quantifiable is appropriate, as it fails to address the underlying problem that such a form of introspection cannot account for relations in experience. In contrast, James maintains a staunch empiricism that uses the lived experience of individuals as the standard against which accounts of psychology ought to be judged. Mill’s account of loving one’s child is remarkably dissimilar to how the phenomenon appears through introspection, which signals that something may be

101 James, PP1, 191.
wrong somewhere in Mill’s process. In this case, James would claim that the error was Mill’s psychological atomism due to the effect that it has one’s approach to psychology.

James does not so much reinvent introspection as repurpose it. Rather than cataloguing the contents of consciousness, introspection reveals what it is like to have a certain state and in so doing sets a standard against which psychological theories must be judged. This gives subjective experience a prominent place in psychological explanation. When introspecting subjective experience, one must take care not to commit the psychologist’s fallacy, which one avoids primarily by ensuring that one does not confuse the standpoints from which one may approach mental events. I shall now turn to the consequences that James’s response to the Comte-Brentano debate, and especially James’s form of introspection, has for our present project.\textsuperscript{102}

\subsection*{1.3.4 Consequences for this project}

James’s response to the debate over the legitimacy of introspection in psychology has significant consequences to this project. The most significant consequence is that a major aspect of James’s explanatory goal is to be true to life as possible; that is, that the subjective experience of mental events are an important part of their explanation. We must approach action in the same way and determine what, if any, subjective marks of action exist. The discussions of volition, habituation, and attention will all suggest such a subjective mark of action, and all suggest the same mark: the feeling of effort, which shall be the topic of chapter four. This gives us the third feature of the account of action given above: that the behaviour that

\textsuperscript{102} I should note that while James’s form of introspection failed to make much of an impact on experimental psychology or Anglo-American psychology in general, it is considered foundational to the school of \textit{Gestalt} psychology (see Boring, 608-9).
results from the pursuit of ends that have the function of adapting the organism to its environment is generally accompanied by the feeling of effort.

### 1.4 James’s Appeal to Psychophysics

Another way in which James’s approach to psychology differed from his predecessors is that it was based on psychophysics rather than physiology. Structuralist accounts were primarily physiological in that mental events were considered either epiphenomenal or reducible to physical events and thus could be accounted for solely by determining how our physiology brings mental events about viz. the stimulation of the brain. Such an account was unavailable to functional psychologists. As noted above, a functional approach to psychology is concerned with determining the physical conditions for mental phenomena. However, given that the organism is essentially active in its pursuit of ends, it must also be concerned with the physical effects to which mental phenomena lead.\(^\text{103}\) James argues that the causal relationship between mental events and physical events is mutual and difficult to untangle. He notes that “mental phenomena are not only conditioned \textit{a part ante} by bodily processes; but they lead to them \textit{a parte post},” and deems it “safe to lay down the general law that no mental modification ever occurs which is not accompanied or followed by a bodily change.”\(^\text{104}\) James considered it the responsibility of psychology to account for how this causal relationship worked and how\(^\text{105}\); in other words, to be psychophysicists as well as psychologists.

The distinction that psychophysical psychology draws between mental events and physical events is operational. James draws the distinction on functional lines: mental events and physical events differ in their conditions, in the role that they play for the organism, and how

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\(^\text{103}\) James, PP1, 5.

\(^\text{104}\) James, PP1, 4, 5.

\(^\text{105}\) James, PP1, 5.
they are experienced subjectively.\textsuperscript{106} What one considers a mental event or a physical event will depend largely on the standpoint from which one is examining the event in question. If one is looking at the role that a part of experience plays in cognition, then one will consider it a mental event; if one is considering what parts of the body are involved in the production of a part of experience, then one will consider it a physical event. James laments over the English language’s inability to supply him with a single word that would cover both aspects, instead settling on ‘thought’ and ‘feeling’ to distinguish between the respectively more mental and more physical elements of experience, viewing them on a gradient rather than a strict binary.\textsuperscript{107}

While willing to draw an operational distinction between mental and physical events, James does not intend for this to be taken as a metaphysical distinction. Rather, he is attempting to remain as metaphysically neutral as possible so that psychology can progress without being bogged down in interminable metaphysical debates. The same impulse is reflected in Angell’s later summary of the matter:

> It is not clear that the functional psychologist because of his disposition to magnify the significance in practice of the mind-body relationships is thereby committed to any special theory of the character of these relationships, save […] that negatively he must seemingly out of necessity set his face against any epiphenomenalist view. He might conceivably be an interactionist, or a parallelist or even an advocate of some wholly outworn creed.\textsuperscript{108}

The goal is thus not to eliminate metaphysics, but to ensure that whatever work done in psychology is not linked to any particular metaphysical system. This would distract from the purpose of psychology: to provide an account of human behaviour.\textsuperscript{109}

\textsuperscript{106} James, PP1, 8-10.

\textsuperscript{107} James, PP1, 185-6.


\textsuperscript{109} This problematizes the approach to psychology that Dewey articulates in his 1886 textbook \textit{Psychology}, 3d. rev. ed. (New York: Harper and Brothers, 1893). Despite the book ostensibly being a
1.4.1 Consequences for this project

While the psychophysical approach to psychology does not directly affect the definition of action given above nor illuminate a particular aspect of it, it does affect the direction of this project as a whole. First, it clarifies what is required of the treatments of volition, habituation, attention, and the feeling of effort implied by the other aspects of James’s approach to psychology. What is required is not a physiological or metaphysical treatment of them, but rather a psychophysical treatment that would show how physical processes lead to those mental phenomena and how those mental phenomena lead to physical events. Second, I must respect James’s desire to remain as neutral as possible with respect to any metaphysical textbook of psychology, and the careful attention to the function that any mental operation has for the organism, the book was largely ignored by the psychological community. Boring notes that

Dewey wrote his psychology as a philosopher. He said then, as philosophers say now, that an exposition of psychology depends upon the philosophical assumptions implicit in it and that it is better to have these implications out in the open than to go ahead pretending they do not exist. Seldom do the psychologists accept this admonition.

(Boring, 552-3)

The philosophical nature of Dewey’s text is easy to see. The first and most lengthy part of Dewey’s  

Psychology is that of Knowledge. Under that heading were subsumed many of associationist psychology’s traditional subjects: sensation, perception, association, and so on. While Dewey does go over the constitution of each mental operation, he spends more time describing the role that they played in the production of knowledge of self, which was not considered a topic fit for the psychology of the day. (Dewey, 2, 3) The psychological community finally recognized Dewey’s contributions after his publication of “The Reflex Arc in Psychology” in 1896. By that time, James had published his Principles (1890) and Titchener had legitimized functionalism as a school through his explicit opposition to it—but only after accepting the terminology of structuralism versus functionalism that James had set out in his Principles. (Boring, 556) With the programmatic dualism advanced by James (and later by other functionalists, including Dewey) one avoids having one’s psychology mistaken for philosophy.
account that might be implied by James’s work. To that end, I will largely ignore these implications unless a particular implication is relevant to the topic at hand.

1.5 Conclusion

In this dissertation, I shall defend the claim that James believes that action refers to all behaviour whereby an organism pursues ends in order to adapt to its environment while under such conditions that the organism experiences a feeling of effort. In this chapter I have examined the ways in which James’s scientific approach to psychology differed from those of his predecessors and contemporaries in order to determine why he thought that and what those terms mean. I identified four major differences in that regard. The first major difference was James’s functional psychology\textsuperscript{110}, which considers psychological phenomena from the point of

\textsuperscript{110} Early in his book \textit{William James and Phenomenology}, Bruce Wilshire explicitly rejects the claim that James is a functionalist, saying that such a label “conceals more than it reveals” (Bruce Wilshire, \textit{William James and Phenomenology: a Study of ‘The Principles of Psychology’}, (Bloomingdale: Indiana University Press, 1968), 7). Wilshire argues that rather than seeing James as a functionalist, or any other form of psychologist, James should be seen as a “pioneering phenomenologist” due to James’s insistence that mental states are always directed outwardly to the world. (Wilshire, 7-8) Wilshire argues that James’s phenomenology arises as a response to the breakdown of an alleged metaphysical distinction that James makes between mind and body early in the \textit{Principles}. (Wilshire, 12, 16) Wilshire then proposes and launches into a prolonged investigation of the \textit{Principles} in order to demonstrate James’s commitment to a sort of protophenomenology. The ensuing work has been very influential in James scholarship, being supported and refined in the works of Wild, Taylor, and Seigfried, among others.

The problem with Wilshire’s approach is that he has not sufficiently accounted for the psychological milieu in which James was writing in one important way: he misrepresents James’s
view of the function that they have for the organism. Since James considers the function of action to be the pursuit of ends this necessitated an investigation into James's conception of volition, which shall be the topic of chapter two. The second major difference was James's commitment to evolution. James's commitment to evolution entails viewing organisms as being forever embedded in an environment to which it is adapting. This necessitated an investigation into the means by which organisms adapt to their environments (habituation, discussed in chapter two with respect to volition). Further, the organism is essentially active in the project of adaptation, selecting ends on the basis of its subjective interests. This required a discussion of attention, the topic of chapter three. The third major difference was James's unique brand of methodological dualism. Wilshire notes that James insists on a 'thoroughgoing dualism', but renders this in exclusively metaphysical terms. Wilshire claims that James's psychology is a double dualism, as it were. There are thoughts and there are physical things in space and time; the thoughts are related both causally and cognitively to the physical things. In the case of the causal relationship of thought and brain the relationship is definitely empirical and external; in the case of the cognitive relationship of thought and what thought knows (thought’s object) the relationship seems to be empirical and external. (Wilshire, 13)

By advancing this “double dualism,” Wilshire is then able to enumerate the many occasions on which this dualism breaks down in order to advance his thesis that James’s work is better suited as phenomenology rather than psychology. While it is beyond the scope of the present project to present all of the ways in which James’s alleged dualism breaks down according to Wilshire, suffice it to say that Wilshire believes that “James’s manifest program of dualism [breaks] down immediately” and then declines from there until James is rescued by a latent strand of phenomenology. (Wilshire, 20)

This misunderstands the psychological tradition. First, it ignores that a methodological dualism is a foundational feature of any functional psychology, as noted by Angell. (Angell, 83) Further, what Wilshire identifies as a latent strain of phenomenology is a central feature of functionalist thought. Wilshire has uncovered some important relations between James and phenomenology; I owe to him the discovery of James's connection to Gestalt psychology. However, he is mistaken about the claim that James was doing phenomenology for phenomenology’s sake and that he was not a functionalist.
introspection, which holds subjective experience as the standard against which psychological accounts are to be judged. This necessitated an investigation into the particular subjective experience of action: the feeling of effort. This shall be the topic of chapter four. Finally, James’s psychophysical approach requires investigations of mental phenomena to take a certain form and to remain as metaphysically neutral as possible.

The principles of James’s psychology are in place and the task set before us is clear. I shall now turn my attention to the topic of volition.
CHAPTER TWO

VOLITION

In the previous chapter, I examined four ways in which James’s scientific approach to psychology differed from those of his predecessors and contemporaries to shed light on James’s definition of action. The first of these, James’s functional psychology, made the organism’s pursuit of ends important to an adequate understanding of action. Historically, psychologists have thought that the mechanism by which an organism pursues ends to be volition. The purpose of this chapter is to examine James’s account of volition and determine how it affects his account of action.

This chapter shall proceed in the following manner. First, I will examine three of the most historically important psychological accounts of volition, namely those of Bain, Spencer, and Wundt. Each account posits the existence of a ‘feeling of innervation’; that is, a feeling of nervous energy being directed towards one’s nerves. Second, I will examine how James’s account differs from those of his predecessors and contemporaries. The salient differences are that James’s account is based on an afferent feeling of effort rather than an efferent feeling of innervation and the adaptive role that habituation plays in volition. Finally, I shall consider the effects that James’s account of volition has for our understanding of action. James’s effort-based account of action helps us pick out which behaviours are to be explained by an analysis of action. The behaviours that are to be determined are those where an organism’s habituated behaviour are insufficient to discharge into motor action unimpeded. Further, the ideational nature of volition implies that all actions are performed in the pursuit of an end.

I will now examine the innervation-based accounts of volition of Bain, Spencer, and Wundt in order to better situation James’s account of volition in its appropriate context.
2.1 Innervation-based Accounts

2.1.1 Bain’s account

Bain’s account of volition has three defining characteristics: first, it is a physiological account; second, it is a developmental account; and third, the mechanism by which volition develops is conflict with one’s environment. These shall be taken in turn.

Bain held the then-controversial view that the brain was the primary organ of the mind. Drawing from recent advances in physiology, Bain held the main activity of the brain to be the direction of the discharge of the excess nervous energy that the organism generates through digestion.111 In digestion, food is broken down into energy by the stomach.112 This energy is then released into the organism’s nervous system.113 Once there, the nervous system automatically allocates some of the energy to power the organism’s involuntary processes, such as its heartbeat, and to replenish expended energy in its extremities.114 Bain believed that this accounts for a relatively small amount of the energy generated by digestion.115 The remainder of the nervous energy remains in the brain. This leads Bain to posit the “irresistible” conclusion that “there is in the constitution a store of nervous energy, accumulated during the nutrition and repose of the system” which spontaneously discharges into action “with, or without, the application of outward stimulants or feelings anyhow arising.”116 This excess nervous energy builds up through the organism exercising conscious restraint or automatically through periods

111 Bain, SI, 51.
112 Bain, EW, 304.
113 Bain, EW, ibid.
114 Bain, SI, 83.
115 Bain, EW, 304.
116 Bain, EW, ibid.
of inactivity.\textsuperscript{117} The amount of energy that can be retained depends on the organism’s individual constitution and its present circumstances, but eventually it will spontaneously discharge into random bodily movements if it is not channeled towards an appropriate end by the brain.\textsuperscript{118}

The physiological basis of volition leads Bain to make the then-revolutionary claim that volition was something that was developed over the course of an organism’s life, rather than being an innate ability of the mind. Despite fierce opposition from critics, Bain believed that such a conception was the only legitimate one borne out by the facts. Bain noted that “[a]t the moment of birth, voluntary action is all but a nonentity,”\textsuperscript{119} with the only purposeful activity being a few evolved reflexes which are necessary for a newborn’s survival.\textsuperscript{120} As noted above, a buildup of excess nervous energy will eventually result in random bodily movements. Once these bodily movements occur, they are met with a response from our environment that may be either pleasurable, painful, or neutral.\textsuperscript{121} The physiological imperative to pursue pleasure and avoid pain causes the child to associate specific feelings with specific bodily movements.\textsuperscript{122} Through repetition, the child learns to direct its bodily movements towards certain ends, going from gross motor movements to fine motor movements. The organism’s ability to perform volitional action grows along with the organism.

For Bain, the development of an organism’s ability to perform volitional action is accomplished through conflict between the organism and its environment or between the organism’s desires and its ability to fulfill those desires. For Bain, conflict is an intractable

\textsuperscript{117} Bain, SI, 78; EW, 308, 315-6.
\textsuperscript{118} Bain, SI, 67, 78; EW, 54, 308, 315-6.
\textsuperscript{119} Bain, SI, 293.
\textsuperscript{120} Bain, SI, 67, 300; EW, 54.
\textsuperscript{121} Bain, EW, 12.
\textsuperscript{122} Bain, SI, 67-8, 296.
element of the human condition. While some of this conflict is conscious, e.g. the constant task of fending off starvation, a great deal of it is not. Most of the conflict faced by an organism is at the level of habits. For Bain, when we have fully developed habits, our limbs will reflexively act in such a way to perform the habit without conscious thought whenever met with the appropriate stimulus.\textsuperscript{123} In such cases, nervous energy automatically flows towards the nerve endings required to execute the habituated behaviour. In the case of a situation where more than one habituated response is appropriate, energy flows towards both sets of relevant nerve endings, and the stronger habit—defined as the one with the most energy empowering it—will be the one that is performed.\textsuperscript{124} In any case where energy present in the organism’s nerves is insufficient to bring about an action, the organism can direct its reserve energy towards the nerve-endings which would lead to the desired result, thus tipping the scales in favour of the chosen course of action and overcoming the conflict.\textsuperscript{125}

\textsuperscript{123} Bain, EW, 398-9.

\textsuperscript{124} Bain, EW, ibid.

\textsuperscript{125} Bain, EW, ibid. Bain’s emphasis on conflict and its relation with the development of habits is likely a significant source of inspiration for Peirce’s discussion of doubt in “The Fixation of Belief.” Peirce argues that doubt is an “uneasy and dissatisfied state from which we struggle to free ourselves and pass into the state of belief.” (Charles S. Peirce, “The Fixation of Belief” in Nathan Houser and Christian Kloesel (eds.), \textit{The Essential Peirce}, Volume 1, (Bloomington, IN: Indiana State Press, 1992), 114) Doubt occurs when one’s settled beliefs and habits are disrupted and causes a struggle to attain a state of belief. (Peirce, “Fixation,” ibid.) The resolution of doubt involves testing hypotheses against the external environment in order to find a new habit that does not cause the irritant of doubt. (Peirce, “Fixation,” 120)

There is no doubt that Peirce’s work was operating in the background of James’s work on the subject. However, it is not clear who influenced James’s most directly in this regard: Bain, Peirce, Darwin, or even Chauncey Wright through The Metaphysical Club. Answering this question would not affect this project; thus, I shall leave it unanswered.
These three features of Bain’s account of volition lead Bain to posit a sequence of feelings that would only accompany volitional actions, one step of which is a feeling of innervation. First, one would feel the insufficiency of the energy in the relevant nerve endings for executing the intended action.¹²⁶ One would then feel the sufficiency of the energy once the energy from the reserve is added. Lastly, one would experience the subsequent state of depletion of one’s reserves. It is the second in this series of feelings that one would identify as the feeling of innervation. In any volitional action, one would thus experience the outpouring of energy in proportion to the amount of energy required to make up for the deficit and to the efficiency of the pathway through which the energy is being directed.

James was therefore right to consider Bain’s account of volition to be an innervation-based account. However, Bain’s account was not the only account of volition that was influential in James’s time. I will now turn to the second such account; namely, that of Spencer.

### 2.1.2 Spencer’s account

Spencer’s account of volition has three features: first, like Bain’s, it is a physiological account; and second, it is deflationary. I will take these in turn.

The physiological basis of Spencer’s account of volition is more sophisticated than that of Bain’s. Spencer held that ‘nervous energy’ was the byproduct of our physiological processes functioning properly.¹²⁷ Digestion, respiration, and the circulatory system all produce an energy “which we cannot identify with any of the forces manifested by bodies that are not alive,—a force which is thus unknown, in the sense that it cannot be assimilated with any otherwise-recognized class.”¹²⁸ Spencer claims that this “nerve-energy” is the energy unique to living

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¹²⁶ Bain, EW, ibid.

¹²⁷ Spencer, PB, 50.

¹²⁸ Spencer, PB, 49.
beings that causes bodily movement, if directed towards motor nerves, or causes consciousness, if directed towards the central nervous system.\textsuperscript{129} The transfer of nerve-energy from one place to another disrupts the natural equilibrium of an organism’s nerves, prompting constrictions of muscles and subsequently bodily movements.\textsuperscript{130} Nerve-energy travels through the nervous system through the expansion and constriction of nervous tissue in a manner analogous to how swallowed food travels down the esophagus.\textsuperscript{131} The discharge of energy starts with an external stimuli causing one or more nerve endings to constrict, causing the energy contained therein to be released and any adjacent nerve fibres to also constrict.\textsuperscript{132} They release their energies and cause adjacent nerve tissue to also constrict. This process continues until there is a logjam in the form of nervous tissue which has recently constricted and has not had enough time to expand. The expansion of nervous tissue occurs when energy is transferred either from adjacent nerves or from oxygenated blood.\textsuperscript{133} Thus, if nerve A constricts and causes nerve B to constrict, the energy from nerve B will allow for A to expand and be ready for further constriction. Oxygenated blood rejuvenates those nerves which have no neighbouring nerves in a position to rejuvenate them and tops up the energy contained in any nerve which is not at capacity. The ultimate discharge of energy results in bodily movement.\textsuperscript{134}

Spencer believed that this process was the same for both volitional and non-volitional actions. He rejected Bain’s claim that an organism could freely choose between different

\textsuperscript{129} Spencer, PB, 50-1.
\textsuperscript{130} Spencer, PB, 51.
\textsuperscript{131} Spencer, PB, ibid.
\textsuperscript{132} Spencer, PP1, 86.
\textsuperscript{133} Spencer, PP1, 87-88.
\textsuperscript{134} Spencer, PP1, 92.
courses of action. Instead, Spencer held that the term ‘volition’ signified a relationship between the interior life of the organism and the external environment. I will now discuss the nature of that relationship and how it leads Spencer to posit a feeling of innervation.

Rather than seeing the organism as essentially active and in a state of perpetual conflict with its environment (Bain), Spencer saw the organism as being essentially reactive and in a state of perpetual adjustment to its environment. For Spencer, there will always be stimuli from the external world that instigate the discharging-process described above. The process of habituation organizes the inner life of the organism to resemble that of its environment. If an organism’s inner life—its developed sets of habits, beliefs, and so on—conform to the way that the world actually is, and leads to successful adaptation within the world, then the action will immediately follow from the appropriate environmental stimuli with no representation in consciousness. If the organism’s inner life is disorganized—that is, it does not accurately reflect the world or does not lead to adaptation—then something more is required for bodily movements to occur. Thus, for Spencer, “the cessation of automatic action and the dawn of volition are one and the same thing.” The role of volition is to excite the nerves in a nascent way such that it is primed to respond to the environment should that discharge not be impeded by competing discharges. As was the case with Bain, the stronger impulse will prevail, but

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135 Spencer, PP1, 501-2.
136 Spencer, PP1, 371.
137 Spencer, PP1, 272.
138 Spencer, PP1, 496.
139 Spencer, PP1, ibid.
140 Spencer, PP1, 497.
141 Spencer, PP1, ibid.
unlike Bain, Spencer does not believe that there is a conflict when one does not perceive the conflict.¹⁴²

This view implies a special feeling of innervation that occurs in volitional action. Spencer claims that volition primes nerves by causing them to behave in the way that they would behave if they were met with the appropriate external stimulus, but without the presence of that external stimulus.¹⁴³ In such a case, the constriction does not truly begin with the nerves, but with the brain. To use the digestion analogy, the brain provides the initial closing of the esophagus—the swallowing—that then starts the process of constriction. Since nerves would have an excess of energy, they would constrict and pass it off to their nearest neighbour that is not constricted. This process carries on until there is some extra energy in the efferent nerve responsible for the execution of the willed action.¹⁴⁴ There is thus a feeling of innervation that is the hallmark of volitional behaviour.

Despite Spencer’s importance to the psychological tradition, his account of volition was not the most important when James was active. Those honours are for Wundt’s account, to which I now turn.

2.1.3 Wundt’s account

Unlike Bain and Spencer, Wundt is clear and direct about his belief in a feeling of innervation. For Wundt, innervation occurs when the brain directs energy through efferent nerves towards nerve endings. Without the influx of energy from innervation, each cell (and larger structure, such as muscle groups) remains in a state of equilibrium with respect to its

¹⁴² Bain does not deny that a 90%-10% conflict is a conflict, even though we may not experience it. Spencer, on the other hand, sees no conflict if we do not experience it.

¹⁴³ Spencer, PP1, ibid.

¹⁴⁴ Spencer, PP1, 522.
inhibitory and excitatory impulses.\textsuperscript{145} The influx of energy upsets this equilibrium in favour of the excitatory impulses, and results in an action.\textsuperscript{146} Wundt notes that this process is identical for reflex and voluntary actions. However, voluntary actions are accompanied by one of two specific feelings: one, a feeling of resolution, present when one makes choices about future behaviour; or two, a feeling of decision, present when one is selecting from competing present alternatives of behaviour.\textsuperscript{147} Wundt argued that the reason why feelings of decision were more intense than feelings of resolution was the contrast between the feeling of relief that follows a feeling of decision.\textsuperscript{148} Both feelings, and especially the feelings of decision, are the catalysts for nervous energy to issue from the brain towards the nerve endings; therefore, both of these feelings are feelings of innervation.

There are two details about Wundt’s account that are especially pertinent for placing James in his historical context. First, by accepting physiology as the appropriate starting point of psychology, Wundt believed that he had placed himself firmly in the materialist camp. Although the energy that issued forth from the brain was unique to the brain, he did not think that it was of a different kind than any other energy contained within the body.\textsuperscript{149} He accepted that it was a modified version of the same underlying energy with a unique source and purpose. Despite this, it is important to note the importance of choice in Wundt’s account. For Wundt, the brain was able to choose from multiple competing courses of action.\textsuperscript{150} While largely based on the emotional associations that one has with particular courses of action, the process itself is largely

\textsuperscript{145} Wundt, PPP, 70, 80-1.
\textsuperscript{146} Wundt, PPP, 81.
\textsuperscript{147} Wundt, OP, 207.
\textsuperscript{148} Wundt, OP, ibid.
\textsuperscript{149} Wundt, PPP, 57.
\textsuperscript{150} Wundt, OP, 206-7.
ideational in a way that Bain and Spencer’s views are not. For those two, choices are largely spontaneous and follow from material conditions and one’s previous history of associations, with buildups of energy causing discomfort and compelling a decision, whereas Wundt does not have an adequate explanation of how doubt compels one to act. Wundt’s view is also important for understanding James in that Wundt clearly sets out the idea that attention and volition are one and the same: “Then, too, with the methods of the old faculty-theory, ‘attention’ and ‘will’ were regarded as different, sometimes as related forces, sometimes as mutually excluding psychical forces, while the truth evidently is that these two concepts refer to the same class of psychical processes.”

Despite this, Wundt did not provide a thoroughgoing and rigorous examination of the physical and psychological differences between the two, or how some members of the class are characterized as attentive and others as volitional.

It is no surprise that James would find Wundt’s work amenable to his own but in need of some modification. As we shall see in the following chapter, the claim that volition and attention refer to the same psychical processes will be pivotal for understanding James’s account of action.

Innervation-based theories of volition were thus well entrenched in the psychology of James’s day. Three of the most influential accounts with respect to James’s psychological context—Bain, Spencer, and Wundt—all held in one way or another that volitional actions were caused by the brain exerting energy towards nerve endings. As noted in the previous chapter, James considered volition to be the means by which an organism pursued ends, making volition a central feature of James’s account of action. Given James’s staunch rejection of innervation-based accounts of volition, it is important to consider James’s reasons for this rejection before examining the account he offered in its place.

151 Wundt, OP, 240.
2.1.4 James's rejection of innervation-based accounts

James’s argument against innervation-based accounts of volition is that such accounts unnecessarily complicate an already complicated picture by introducing an element to the volitional process the existence of which is unsupported by both empirical and introspective evidence.

James notes that consciousness “deserts all processes where it can no longer be of use”; that is, “[w]e grow unconscious of every feeling which is useless as a sign to lead us to our ends…”152 James cites the example of vision: we are not conscious of which eye is producing which sense-data because it is irrelevant to most ends which we pursue.153 Consciousness of that information “would be a superfluous complication” to our sight.154 In the same way, consciousness of the outpouring of energy into the nervous system would be a needless complication of an account of action. James notes that innervation-based accounts generally hold that the feeling of innervation causes the bodily movements that comprise an action. James argues that this would imply three things: first, that one would be aware of the bodily movements being caused by the feeling of innervation; second, that each bodily movement would have a distinct feeling of innervation associated with it; and third, that the feeling of innervation should be felt even if the causal chain breaks down. Unfortunately, none of the three implications hold up to either introspective or empirical evidence. Against the first point, James notes that we are largely ignorant of the movement of muscles when performing tasks.155 Even if we are aware of the initial outpouring of energy and the final result, the middle portions of the

152 James, PP1, 496.
153 James, PP1, ibid.
154 James, PP1, 497.
155 James, PP1, 499.
causal chain are largely opaque to us. This is problematic for innervation-based theories because it fails to explain how the bodily movements in the middle of a causal chain are caused, given that they generally hold that only the first bodily movement is caused by the feeling of innervation. Further complicating this story is that there is not a distinct feeling of innervation associated with each path through the nervous system. Assuming that the only the first bodily movement is innervated, it is unclear how each of the following movements occurs without fail when one is performing a certain action when the feelings of innervation associated with different muscles, as Wundt admits, “have no differences of quality, but feel alike in all muscles, and vary only in their degrees of intensity.”\textsuperscript{156} Finally, if the feeling of innervation exists, then one would expect that if the causal chain were to break down, the feeling of innervation would still be felt. James cites the work of Sir David Ferrier to demonstrate that this is not the case.\textsuperscript{157}

For James there is thus little to commend innervation-based accounts of volition. However, James did not reject the claim that there was a qualitative difference between volitional actions and non-volitional actions. Instead of arguing that there was a feeling of innervation that was the cause of bodily movements within a causal chain, James argued that there was a feeling of effort that we experience as a result of pursuing ends that are not fully habituated. As was required by the work done in the previous chapter, I shall begin my

\begin{footnotesize}
\textsuperscript{156} James, PP1, 500. Consider Spencer’s account of volition given above. If we assume that the brain acts in the way that Spencer believes with respect to setting off a chain of constricted nerves, then we are in a predicament when it comes to the second nerve and onward, unless there is one and only one nerve-tract associated with each particular action, with separate complete tracts associated with every minute difference between actions. This would necessitate that nerve-tracts cannot be used for multiple purposes, which is empirically false.

\textsuperscript{157} James, PP1, 503-5.
\end{footnotesize}
examination of this topic through an investigation of the James's psychophysical foundation of
the volition.

2.2 James’s Kinæsthetic Account

An examination of James’s account of volition was necessitated by James’s functional
approach to psychology and the definition of action being defended in this dissertation. There
are two defining characteristic of James’s account of volition: first, it involves an afferent feeling
of effort instead of an efferent feeling of innervation; and second, habituation has an adaptive
role. The starting point for James’s account is his view of the organism; accordingly, I shall start
there as well.

2.2.1 Effort, not innervation

James’s account of volition begins with his view of the organism, as examined in the
previous chapter. James’s view of the embedded organism falls somewhere between that of
Bain and Spencer. James accepts Spencer’s view of the organism as being embedded within
an environment, but rejects the further view that effective adaptation is achieved through a
proper internal organization such that a true correspondence exists between that internal
organization of ideas and some external reality. Instead, James accepts Bain’s notion that
interaction between the organization and its environment is forever based on conflict, and that
successful resolutions of those conflicts lead to the acquisition of new habits. James accepts
Bain’s view that the mind is fundamentally active in the pursuit of ends, but, along with Spencer,
denies that pleasure and pain are the sole ends that organisms pursue.
This state of affairs is reinforced by James’s neurology. James claims that external objects stimulate the sensory organs and cause nervous energy to rush toward the brain.\textsuperscript{158} Once in the brain, nervous energy from the sensory organs first travels through the part of the brain responsible for habituated responses, which the higher parts of the brain subsequently either permit or inhibit.\textsuperscript{159} Corresponding to the two regions of the brain are two competing forces involved in the production of behaviour. First is the inherent impulsiveness of the brain to actualize whatever idea is present to the organism to the maximum extent possible; James calls this the Will’s “explosiveness.”\textsuperscript{160} Competing with this impulsiveness is our mind’s “dread of the irrevocable”, that once we choose one path, that choice cannot be undone.\textsuperscript{161} In James’s words, “One says ‘now’, the other says ‘not yet’.”\textsuperscript{162} The organism will experience an unpleasant state of unrest—characterized by a feeling of effort—so long as these forces remain in tension. This tension is only relieved when the brain’s impulsiveness is able to overcome its conservatism, at which point “we feel as if an inward spring were let loose.”\textsuperscript{163}

James uses this model to sort between volitional and non-volitional behaviour. The salient difference between volitional and non-volitional behaviour is that there is no idea preceding non-volitional behaviour.\textsuperscript{164} For example, consider the case of a nervous twitch. Even

\textsuperscript{158} James, PP1, 25.
\textsuperscript{159} James, PP1, 24.
\textsuperscript{160} James, PP2, 537. My usage of the term ‘Will’ is to follow James’s usage and does not entail any metaphysical entities.
\textsuperscript{161} James, PP2, 530.
\textsuperscript{162} James, PP2, Ibid.
\textsuperscript{163} James, PP2, 527.
\textsuperscript{164} The meaning of the term ‘idea’ in this context will be looked at more closely in relation to habituation, below.
though the bodily movement may look the same to a casual observer, the twitch did not happen because volition was acting upon an idea of how to proceed—it is merely an accident of our physiology.

In contrast, an idea about how to proceed always precedes volitional behaviour. Volitional behaviour can be categorized into two kinds: ‘ideo-motor’ and ‘willful’, respectively. The difference between the two is the resistance that the organism meets when attempting to act on an idea of how to proceed. In cases of ideo-motor action, the idea of the action is the sufficient cause for that action, wherein “movement follows unhesitatingly and immediately the notion of it in the mind.”¹⁶⁵ In such cases, we are “aware of nothing between the conception [of the movement] and the execution [of the movement].”¹⁶⁶ For example, if someone wishes to open a door, she reaches for the doorknob, grasps, turns, and pushes. Yet each step along the way is not presented to consciousness; at least, not in the day-to-day lives of most people. They wish to perform an action, and so they do it. In such cases, “incoming sensations instigate [movements] so immediately that it is often difficult to decide whether not to call them reflex rather than voluntary acts.”¹⁶⁷ However, they are voluntary acts because of the presence of an idea.

Willful behaviour differs from ideo-motor behaviour in that there are multiple competing, equally attractive ideas of how to proceed that are inhibiting each other’s successful discharge into bodily movement. We feel that even though we have sufficient information to make a decision one way or another, there is no “imperative principle of choice between them,” and we are left at a loss of what to do.¹⁶⁸ The two conceptions may be equally as strong, and equally as

¹⁶⁵ James, PP2, 522.
¹⁶⁶ James, PP2, Ibid.
¹⁶⁷ James, PP2, 523.
¹⁶⁸ James, PP2, Ibid.
attractive to you, but there is a real sense of loss associated with the option you do not choose, and a real sense of gain of what you do. In these cases, “both alternatives are steadily held in view, and in the very act of murdering the vanquished possibility the chooser realizes how much in that instant he is making himself lose.”¹⁶⁹ These are the cases in which “we feel […] as if we ourselves by our own wilful act inclined the beam” to act in one way over another.¹⁷⁰ The distinctive feature of these situations is the feeling of effort that arises due to the ideational conflict between possible courses of action. James argues that his psychological predecessors and contemporaries had mischaracterized this feeling of effort as a feeling of innervation.¹⁷¹

The consequence of this characterization is significant: for innervationists, the feeling of effort is the cause of motor action; for James, the feeling of effort is the result of there being multiple competing courses of action impeding each other from discharging into action. James notes that this accounts for a relatively small amount of our behaviour, as we often are “misled into supposing that effort is more frequent than it is” because we often mistake the feeling of how hard it would be to make a decision at that moment for the feeling of making a hard decision.¹⁷² This is because for James, the presence of the feeling of effort indicates that one’s habituated responses to environmental stimuli have failed to lead to successful adaptation. This leads us to the topic of habituation, to which I shall now turn.

¹⁶⁹ James, PP2, Ibid.
¹⁷⁰ James, PP2, 534.
¹⁷¹ James, PP2, 535.
¹⁷² James, PP2, ibid.
2.2.2 Habituation has an adaptive role

a. The psychophysics of habituation

The concept of habituation plays a crucial role in James’s psychology. Although James developed his view of habit over the period of two decades, its central features remained the same. One of the central features of James’s account of habit is that it is rooted firmly in the organic nature of our bodies. James explains that the habits of our organic matter can change because our organic matter is a compound, “and either outward forces or inward tensions can, from one hour to another, turn that structure into something different from what it was.”

Outlining a version of neuroplasticity almost a century before it became a common topic in neuroscience, James attributes the ability of organic matter to acquire, develop, and change habits to its “possession of a structure weak enough to yield to an influence, but strong enough not to yield it all at once.” James notes that the nervous tissue of the brain is “endowed with a very extraordinary degree of plasticity of this sort,” although it is not in exclusive possession of this property. The influences to which brain matter yields are currents that pour in through the sensory nerve-roots. Having made their way into the brain, they seek a way out, and in so doing either “deepen old paths [through the brain] or to make new ones.” This structure holds for all forms of habits, from simple reflexes up to complex behaviours, with the only differences being the number of pathways through which the discharge travels on the way to one’s motor

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174 James, Habit, 6.
175 James, Habit, 9.
176 James, Habit, 12.
177 James, Habit, ibid.
nerves. As these pathways are used and reused, they become deeper and deeper, making it more and more likely that the behaviour which results from this discharge will happen. James thus has an entirely mechanistic account of how habits are formed and perpetuate themselves. By basing his account on the nature of organic matter, James has made habituation a necessary feature of all organic beings. As long as something is organic, it will never be able to break free of this process.

This totalizing view of habit has significant consequences for James’s view of character. Since habits are regularly observable patterns of behaviour, any organic being’s character is identical with the sum total of its habits. James notes that “any sequence of mental action which has been frequently repeated tends to perpetuate itself; so that we find ourselves automatically prompted to think, feel, or do what we have been before accustomed to think, feel, or do under like circumstances, without any consciously formed purpose, or anticipation of results.” The traits that are most dear to us, those that we consider what makes us the person who we are, are well-established patterns of behaviour—or, in other words, a habit. A consequence of James’s functional approach to psychology is that the neurological pathways leading to a particular kind of behaviour need not be the same between different organisms. James explains the difference between the patterns of the pathways biochemically: chance blockages, variations in density of tissue, and the particularities of previously existing pathways all contribute to the exact path that the neural energy takes. While a particular pathway is not necessary for a habit, some pathway must exist before any habit can take hold. A habit takes hold once a “general form of discharge” exists, meaning that there is a pathway through which

178 James, Habit, 12-13.
179 James, Habit, 15-16.
180 James, Habit, 24.
181 James, Habit, 16.
nervous energy discharges any time an action of a certain type is performed.\textsuperscript{182} When one has a sufficiently well-entrenched general form of discharge, one has a character trait; that is, a regularly observable and predictable pattern of behaviour when confronted with a certain stimulus.

\textbf{b. The function of habituation}

While habit formation occurs primarily in the brain, its ultimate function is to facilitate more effective interaction between the organism and its environment. Once a behaviour has become a habit through repetition, one is hard-pressed to resist the impulse to react to an environmental stimulus with that habituated behaviour.\textsuperscript{183} This allows the action to be executed without having to devote mental capacity to every aspect of the behaviour in question. If a dancer is performing a habituated dance, he is in a position to perform the dance without having to think about all of the steps of that dance and can allocate mental resources to other things, such as the fine-tuning of that performance. In James’s terms, it has the function of turning willful action into ideo-motor action so that one can turn one’s attention elsewhere.

While this works most obviously with physical reactions to environmental stimuli, James believes that this works for our mental lives as well. James claims that “every state of ideational consciousness which is either \textit{very strong} or is \textit{habitually repeated} leaves an organic impression on the cerebrum; in virtue of which that same state may be reproduced at any future time.”\textsuperscript{184} Nervous energy traversing the brain leads to mental states. Further attention to these mental states can also carve pathways through the organic matter of the brain and lead to further habits

\textsuperscript{182} James, PP1, 126.  
\textsuperscript{183} James, PP1, 115.  
\textsuperscript{184} James, \textit{Habit}, 25.
of thought.\textsuperscript{185} As was the case with character, James does not intend this to be a reductionist account of thought. In this passage, he is instead accounting for the phenomenon of having certain thoughts associated with certain objects, or a pathological compulsion to think about a certain thing when confronted with something else.

In both cases, the effect of habituation on adaptation is the same: more efficient responses by having a primed response to environmental stimuli. From this characterization we can see how it relates to the feeling of effort that one experiences in volitional action. Since habits are strong compulsions towards a specific response, it acts as an inhibitor against other actions from manifesting themselves. In these cases, we do not experience the sensation of effort that we experience when we have competing courses of action. If we encounter a stimulus and have no habituated response to it, we feel the sensation of effort, which grows in intensity the longer the situation persists and/or while the situation is pressing. If as a result of stimulus \( s \) we attempt response \( r \) and it works, then we are more likely to try \( r \) the next time we encounter \( s \) or \( s \)-like stimuli. As it becomes more entrenched, we experience pleasant sensations of ease, comfort, and fluency, which further reinforce our propensity to \( r \) when \( s \), and we would no longer experience the sensation of effort or distress should we encounter \( s \) in the future.\textsuperscript{186} From this conception, we would expect that breaking habits is difficult and sometimes painful. Although the sensation of effort is removed in situation \( s \), attempting to perform any other action than \( r \) would introduce more effort than \( s \) originally required, as now one would have to overcome \( s \) and the compulsion to \( r \). This is why James considers habit to be “the enormous fly-wheel of society, its most precious conservative agent”\textsuperscript{187}: it is easy and pleasant to stay within one’s habits, and revolution is hard and unpleasant.

\textsuperscript{185} See section 3.2.1, below.
\textsuperscript{186} See section 1.4, above.
\textsuperscript{187} James, PP1, 121.
2.2.3 Consequences for the present project

James’s kinæsthetic account of volition has significant consequences for the present project. James’s adherence to an effort- rather than innervation-based account helps pick out what behaviour is to be explained in an analysis of action. Both kinds of accounts acknowledged that there is a qualitative difference between volitional and non-volitional actions, but differed with respect to the nature of that feeling. Innervation-based accounts held that the feeling is that of nervous energy being directed towards bodily movements. James’s effort-based account held that the qualitative difference in volitional action is a product of the energy being used in order to resolve an ideational conflict between competing possible courses of action. The absence of the feeling of effort indicates that there was no ideational conflict in need of resolution. There could be two reasons for this. First is that there was no idea preceding the movement, such as a twitch or a reflex. Such cases are not candidates for action. Second is that there were no opposing ideas strong enough to cause such a conflict. James still considers these cases volitional because they were the product of ideo-motor action. This clarifies the first requirement of an action given James’s definition: that actions are all behaviour whereby an organism pursues ends: all ideas require an end, and all volitional behaviour requires an idea.

At this point, we can explain what it means to have an idea about how to proceed. Richard Gale notes that for James an idea of a particular bodily movement consists of “the kinæsthetic and visual sensations of [the bodily movement] and some of its effects.” James’s neurology supports this claim. Nervous energy carves pathways into the brain, through which subsequent nervous energy can travel. The differing circumstances under which an action is performed will carve slightly different neural pathways. Gale notes that once pathways are

\[\text{Richard M. Gale, The Divided Self of William James, (New York: Cambridge University Press, 1999), 56.}\]
established, the idea of the kinæsthetic and visual sensations associated with the bodily movement can act in place of the stimulus that had created that idea. This works by having a nascent feeling of what it is like to behave in the way being considered, which then excites the neural pathways associated with that behaviour, leading to the performance of that behaviour. An idea of a particular course of action thus contains not only the particular end that one is trying to accomplish, but also an awareness of the various means by which one may bring it about.

Habituation is important to James’s account of action in two ways. First, it clarifies the second feature of James’s definition of action, that the ends relevant to action are those which help an organism adapt to its environment. James holds that the organism is continually acting and reacting to its environment. Any given stimulus has many possible responses. The function of habituation is to remove conflicts between those possible responses so that behaviour follows unimpeded from thought. This minimizes the amount of energy that one requires to undertake certain tasks, thus freeing up that energy for the pursuit of more complex ends. The second way in which James’s account of habituation is important to James’s account of action is that it reaffirms the importance of subjective experience to that account of action. One of the effects of removing ideational conflicts is that it lessens the amount of discomfort that one experiences in effortful behaviour. The feeling of effort is experienced when an action has not been fully habituated. Thus, the conditions necessary to experience the feeling of effort is that there are competing possible courses of action which hold roughly equal appeal and one of which has not been habituated. This shall become especially important in chapter four.

189 Gale, ibid.
190 Gale, ibid.
2.3 Conclusion

In this chapter, I demonstrated that the primary difference between James’s account of volition and those of his predecessors and contemporaries was that James held an effort-based account, while others held an innervation-based account. I first examined three influential innervation-based accounts—namely those of Bain, Spencer, and Wundt—in order to demonstrate how and why they believed that a feeling of innervation was a necessary feature of volitional behaviour. In contrast, James held that the qualitative difference between volitional and non-volitional actions was properly understood as the feeling of effort that one experiences when one pursues ends. Such effort is a product of an ideational conflict between possible courses of action. This is important to James’s definition of action in that it requires that actions be limited to behaviour that is ideationally represented in the organism; in other words, behaviour that is done in the pursuit of ends. This discussion led to an examination of James’s account of habituation, the process by which the effort required to perform a task is diminished and through which organisms adapt to their environment. This clarified the second feature of James’s account of action that limits actions to behaviours that help the organism adapt. Behaviour that is not borne from a desire to adapt to the environment, such as twitches or reflex actions, are not actions because there is no idea upon which volition is acting and as such could not enter into ideational conflict with other behaviours. Lastly, the emphasis on the feeling of effort reaffirmed the importance of subjective experience to James’s account of action.

There is one topic left to examine with respect to volition and habituation. While I have discussed what leads to choosing a course of action and what happens once a course of action has been chosen, I have largely remained silent with respect to how courses of action are chosen. James believes that selecting courses of action is a function of attention. Further, he makes the surprising claim that volition is reducible to attention. Accordingly, the topic of the next chapter is attention, to which I now turn.
CHAPTER THREE

ATTENTION

I am defending the claim that James believes that action refers to all behaviour whereby an organism pursues ends in order to adapt to its environment while under such conditions that the organism experiences a feeling of effort. In the previous chapter, I examined James’s accounts of volition and adaptation in order to explain what it means for an organism to pursue ends and to adapt to its environment, respectively. Both accounts implicated attention as an important mechanism in action. In this chapter, I will examine James’s account of attention and consider the ways in which it affects our understanding of action.

James’s account of attention is significant for this project. Much of this significance comes from his rejection of the prevailing ‘effect-theory’ of his day. As such, I will begin with a discussion of the standard view of attention of his day, represented here by Wundt and F. H. Bradley, and James’s arguments for why a ‘cause-theory’ of attention is superior. I will then articulate two central features of James’s account of attention: first, attention is causally efficacious; and second, attention is necessarily selective. These features, taken together with James’s embrace of a ‘cause-theory’, has two significant consequences for our understanding of action: first, not only does attention have causal efficacy, but volition itself is a form of attention, specifically ideational preparation with a feeling of effort; and second, the feeling of effort in attention both implies and is implied by the awareness of our behaviour.

I will now turn to an examination of the scientific context in which James was writing with respect to the topic of attention. I will begin with James’s definition of the ‘effect-theory’.
3.1 “Effect-theories” of Attention

As was the case with volition, James’s account of attention differed from that of his contemporaries and predecessors. The prevailing notion of attention at James’s time held that attention was a causally inert effect of the proper operation of physiological and psychological processes. James calls this the “effect-theory” of attention. As understanding the context in which James was writing is important for understanding James, I shall now turn to an examination of two of the most influential “effect-theories” of attention; namely, those of Wundt and F. H. Bradley.

3.1.1 Wundt’s effect-theory

For Wundt, attention is the “state which accompanies the clear grasp of any psychical content and is characterized by a special feeling.” Wundt calls the process leading to this state ‘apperception’, and the perceptual content is said to be ‘appercieved’. Conversely, any perceptual content to which one does not attend is said to be ‘apprehended’. The apprehended and apperceived perceptual content together constitute the “field of consciousness”, of which only the “inner fixation-point” contains any content to which is attended. In Wundt’s metaphor, it is not the fixation-point itself that moves, thus surveying possible perceptual content and attending to it, but rather the content that is moving with the fixation-point remaining at rest. Some content may pass through one’s field of consciousness without ever reaching the fixation-point, which would keep that content from ever being present to consciousness. The perceptual content that does make its way into the fixation-point are able to do so because they have

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191 Wundt, OP, 229.
192 Wundt, OP, ibid.
193 Wundt, OP, ibid.
sufficient intensity to “force themselves energetically into the fixation-point of consciousness” and force out whatever had been previously occupying that place.\footnote{Wundt, OP, 237.} Wundt argues that particular feelings will be associated with the perceptual content that occupies the fixation-point corresponding to the organism’s antecedent mental state. If the organism is in a state of what Wundt calls ‘passive apperception’, in which “new content may force itself on the attention suddenly and without preparatory affective influences,” the perceptual content will be associated with an initial feeling of shock followed by a feeling of release.\footnote{Wundt, OP, 238.} If the organism is in the state of what Wundt calls ‘active apperception,’ in which “the new content may be preceded by […] preparatory affective influences […] and as a result the attention may be concentrated upon this content even before it arrives,” the perceptual content may be associated with feelings of expectation and subsequent fulfillment.\footnote{Wundt, OP, 238-9.}

Despite being associated with particular feelings, Wundt does not think that there are particular mental activities that are unique to attention; indeed, “If the affective side of these processes of attention is more closely examined, it appears that the affective elements are exactly the same as in the case of all \textit{volitional processes}.”\footnote{Wundt, OP, 239.} Wundt claims that the processes involved in apperception are more accurately understood as volitional processes. In cases of passive apperception, the state of attention is brought about as an involuntary reaction to an unexpected stimulus. The state of attention is a mere effect of the organism’s sensory organs adjusting to that stimulus.\footnote{Wundt, OP, ibid.} In active apperception, the state of attention is brought about due to the organism putting itself into a state of expectation. As this is done free of an incoming

\begin{itemize}
  \item \footnote{Wundt, OP, 237.}
  \item \footnote{Wundt, OP, 238.}
  \item \footnote{Wundt, OP, 238-9.}
  \item \footnote{Wundt, OP, 239.}
  \item \footnote{Wundt, OP, ibid.}
\end{itemize}
stimulus, it operates in the same manner as volitional acts as described in the previous chapter. Thus, for Wundt, attention is best understood as an effect of our volitional processes.

Wundt’s account of attention is symptomatic of a broader trend within nineteenth-century psychology. The work of F. H. Bradley typifies this trend; I now briefly turn to his account of attention.

### 3.1.2 Bradley’s effect-theory

Bradley’s account of attention is explicitly deflationary. Bradley defines attention as “predominance in consciousness,” and notes that “some element or elements, sensational or ideal, become prominent from the rest and seem to lower them in strength…” Bradley argues that there is no “special activity of attention”; that is, there is no element of attentional acts that cannot be explained by an account of other physiological and psychological processes.

Bradley argues that there are three kinds of attention: involuntary, voluntary, and voluntary with the feeling of effort. Every element of each of these cases is fully explained by an appeal to the organism’s sensorial and volitional processes. All one needs to know in order to explain how a stimulus comes to predominate consciousness in cases of involuntary attention is the nature of the stimulus and how the organism processes such stimuli. All one needs to know in order to explain how a stimulus comes to predominate consciousness in cases of voluntary attention is the organism’s physiology (to explain how an organism can adjust its sensory organs in the appropriate manner) and its volitional processes (to explain why it would

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199 Wundt, OP, 240. See also section 2.1.3, above.


201 Bradley, 305.

202 Bradley, 319.

adjust its sensory organs in such a way). All one needs to know in order to explain how a stimulus comes to predominate consciousness in cases of effortful volitional attention is the organism’s physiology, its volitional processes, and its affective capacities (to explain the feeling of effort). Bradley concludes

Any function whatever of the body or the mind will be active attention if it is prompted by an interest and brings about the result of our engrossment with its product. There is no primary act of attention, there is no specific act of attention, there is no one kind of act of attention at all.

As was the case with Wundt, the most salient processes in the production of states of attention are volitional processes. For Bradley, the route to understanding attention is to provide a physiological and psychological account of how an organism can cause nervous energy to bring about bodily movements. Thus, Bradley not only suggests to explain attention with reference to volition, but also with reference to an innervation-based account of behaviour.

As Bradley notes, this position was the standard view at the time of writing (1886). Indeed, he was in good company, as similar positions are found in the works of Bain and Spencer, among others. Having explained the context in which James was writing, I will now turn to James’s assessment of that context.

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204 Bradley, 308.

205 Bradley, 308-9, 318-320.

206 Bradley, 319.

207 Bradley, 320-1.

208 Bradley, 305-6.


210 See Spencer, PP2, 185-190, 252.
3.1.3 James’s appraisal of effect-theories

James thought there was much to commend the effect-theory of attention. James grants that attention is best considered merely an effect in cases of immediate sensorial attention. In such cases, (e.g. when one suddenly hears a loud noise), our body automatically adjusts towards the noise and attends to it. James attributes this behaviour to our evolutionary history; it is beneficial to be able to direct one’s attention to unexpected and sudden infringements on our sensory field.\(^\text{211}\) James notes that in such cases the mind is not what is responsible for the act of attention, but rather that the act of attention is a result of the object hitting the organism’s sensory organs in the appropriate manner.\(^\text{212}\) James claims that the same can be said for cases where one attends to something because of some relation it has to another thing, such as when one looks at one’s table when searching for one’s car keys. In this case, the object is only presenting itself to attention because of some relation that object has to something else; the act of attention is an effect of that relation.\(^\text{213}\) As James notes, “The things we attend to come to us by their own laws. Attention creates no idea; an idea must already be there before we can attend to it. Attention only fixes and retains what the ordinary laws of association bring […] to consciousness.”\(^\text{214}\) Finally, the effect-theory can also explain cases of voluntary attention where there is a feeling of effort, which James notes are the only cases where we are really concerned about preserving the spontaneous power of attention. Through Bradley, James argues that such cases could be considered logjams in the stream of consciousness, where the feeling of effort arises because of the difficulty to attend, and not vice-versa.\(^\text{215}\) James concedes that the

\(^{211}\) James, PP1, 449.
\(^{212}\) James, PP1, ibid.
\(^{213}\) James, PP1, 450.
\(^{214}\) James, PP1, ibid.
\(^{215}\) James, PP1, 452.
effect-theory is a “clear, strong, well-equipped conception, and like all such, is fitted to carry conviction, where there is no contrary proof.”

Despite the apparent strength of effect-theory, and the support of it by most psychologists of the time, James argues that there was sufficient contrary proof to reject the effect theory. While the effect-theory is strong, James believed that the cause-theory was stronger. I will now turn to an explanation of the cause-theory and of the reasons why James accepted it over the effect-theory.

3.1.4 Why accept a cause-theory?

James defines the “cause-theory” as that which holds that “[i]f […] the feeling which coexists with the brain-cells’ activity reacts dynamically upon that activity, furthering or checking it, then the attention is in part, at least, a cause.” James believes that the cause-theory is a stronger explanation of attention for two reasons: first, such a theory would make more evolutionary sense; and second, such a theory would be more faithful to the subjective experience of attending. I shall take these points in turn.

The cause-theory would make some evolutionary sense because as an original force, the effort to attend “would deepen and prolong the stay in consciousness of innumerable ideas which else would fade more quickly away.” Keeping ideas in mind that much longer may allow for a better split-second decision when such a decision is required. While James does not support this argument in any meaningful way, it is an inevitable consequence of his commitment to evolution and the resulting view of the organism. Of primary importance for James was the notion that an organism is forever embedded in an environment in which they are fundamentally

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216 James, PP1, ibid.
217 James, PP1, ibid.
218 James, PP1, 453.
active in the pursuit of ends. If the effect-theory is true, an organism cannot select according to its interests. It would therefore be unable to fulfill the active role that James believes organisms necessarily play.

James argues that the cause-theory is more faithful to our common experience because, introspectively, there are many cases in which what becomes our experience hinges on “the amount of attention, slightly more or slightly less, which rival motor ideas we may receive.”

This sets James apart from his predecessors and contemporaries in a significant way; namely, the active role of the mind plays in generating experience. Against effect-theorists, James writes:

> The motive of this ignoring of the phenomenon of attention is obvious enough. These writers are bent on showing how the higher faculties of the mind are pure products of ‘experience;’ and experience is supposed to be of something simply given. Attention, implying a degree of reactive spontaneity, would seem to break through the circle of pure receptivity which constitutes ‘experience,’ and hence must not be spoken of under penalty of interfering with the smoothness of that tale.

Although not covered in this chapter, the prime example of this problem is Spencer, who James says “regards the creature as absolutely passive clay, upon which ‘experience’ rains down.” James saw that the passivity of the organism that was present in most psychological systems of his day was causing these psychologists to misrepresent not only attention itself, but by extension the organism.

### 3.1.5 Summary

James distinguishes between the ‘effect-theory’ and the ‘cause-theory’ of attention. Effect-theories hold that attentional states are effects of other mental processes. Both Wundt and Bradley claimed that attention is better understood as a causally inert byproduct of our volitional processes. Despite the grudging admission that there is much to commend the effect-

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219 James, PP1, 453.
220 James, PP1, 402.
221 James, PP1, 403.
theory, James held a cause-theory, which holds that in some cases attention can be causally efficacious. I will now turn to an examination of James’s account of attention and consider how it affects our understanding of the question of action.

3.2 James’s Cause-Theory of Attention

James’s account of attention has two distinguishing features: first, attention is causally efficacious; and second, it is necessarily selective. I will take these points in turn.

3.2.1 Attention is causally efficacious

Attention owes its causal efficacy to the physiological processes underwriting it. James identifies two physiological processes that he believes constitute a complete account of attention. These two processes are

1. *The accommodation or adjustment of the sensory organs*; and
2. *The anticipatory preparation from within of the ideational centres concerned with the object to which the attention is paid.*

James’s meaning is straightforward enough. The first process includes moving one’s ears towards a sound, one’s eyes towards a flash, and so on. In cases where this adjustment is involuntary, nervous energy flows from the sensory organs and into the brain, where it immediately discharges into neural pathways associated with reflex acts. In cases where this adjustment is voluntary, the same neural process is at work, but the region of the brain responsible for impeding or permitting reflex actions is also activated.

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222 James, PP1, 434.
223 James, PP1, ibid.
224 James, PP1, 25.
225 James, PP1, ibid.
The second process is strikingly similar to the process of active apperception described by Wundt. In the absence of a stimulus to which one's sensory organs adjust, one can put oneself into a state of "ideational preparation" for an expected stimulus. Ideational preparation consists in

\[ \text{nothing more nor less than the effort to form as clear an idea as is possible of what is there portrayed} \]. The idea is to come to the help of the sensation and make it more distinct. It comes with effort, and such a mode of coming in the remaining part of what we know as our attention's 'strain' under the circumstances.

This is supported by James's neurology. By putting oneself into a state of ideational preparation, nervous energy is directed towards the drainage channels associated with the response to the expected stimulus. As noted in the previous chapter, implicit in the idea are the bodily movements that comprise that response. Ideational preparation thus primes an organism to respond to an expected stimulus more efficiently by having nervous energy present in the pathways associated with the bodily movements entailed by that response. An effect of ideational priming is that the organism's sensory organs adjust such that they are in a state to more efficiently process the stimuli for which it is primed; thus, the second process implies the first.

The second process is what allows attention to be causally efficacious. In cases where of sensory attention, whether involuntary or voluntary, attention is merely a product of the organism adjusting its sensory organs in a certain way. The causal efficacy of attention comes from the organism's ability to ideationally prepare for future stimuli. By putting oneself into such a state, an organism has primed itself to react to certain stimuli more effectively. As noted, this

\[ \text{See section 3.1.1, above.} \]

\[ \text{James, PP1, 438.} \]

\[ \text{James, PP1, ibid.} \]

\[ \text{James, PP1, 439.} \]

\[ \text{See section 2.2.3, above.} \]
is accomplished by attention fixating on an idea of what is to come to pass. This excites the ideational portions of the brain such that nervous energy is directed towards the pathways of discharge that are typically active when responding to that stimulus. This awakens in a nascent way the behaviour that is entailed by that response. Continuing to fixate on that idea will maintain the state of expectation until the expected stimulus is experienced. The longer that one has fixated on that idea, the more effortless the discharge of the nervous energy at the time of discharge.

James notes that both processes are likely at play in all cases of conscious attention\textsuperscript{231}; the normal associative processes will always suggest future experience on the basis of present experience.\textsuperscript{232} However, James further notes that in some cases a “star-performer” emerges that goes beyond such processes\textsuperscript{233}; namely, the feeling of effort that one experiences in some cases of ideational preparation. This feeling of effort results from a conflict between competing objects of ideational attention. To understand how this is the case, we must now turn to the second feature of James’s account of attention: its necessary selectivity.

### 3.2.2 Attention is necessarily selective

The second feature of James’s account of attention is that attention is necessarily selective. That James believes this is the case is evident from his definition of attention:

> Every one knows what attention is. It is the taking possession by the mind, in clear and vivid form, of one out of what seem several simultaneously possible objects or trains of thought. Focalization, concentration, of consciousness are of its essence. It implies withdrawal from some things in order to deal effectively with others, and is a condition which has a real opposite in the confused, dazed, scatterbrained state which in French is called \textit{distraction}, and \textit{Zerstreutheit} in German.\textsuperscript{234}

\textsuperscript{231} James, PP1, 434.

\textsuperscript{232} James, PP1, 453.

\textsuperscript{233} James, PP1, ibid.

\textsuperscript{234} James, PP1, 403-4.
The selectivity of attention is a consequence of our physiology. James believes that this holds for both sensorial and ideational attention. Sensorial attention is necessarily selective due to the physiological limitations of our sensory organs. Our sensory organs introduce an element of selectivity of our experience in that “out of the infinite chaos of movements, of which physics teaches us that the other world consists, each sense-organ picks out those which fall within certain limits of velocity.” In other words, since our sensory organs can only sense certain inputs which fall on certain spectra, they select which aspects of the universe are capable of becoming our experience in the first place. Those which fall outside of those limits are “ignore[d] […] as completely as if they did not exist.” Further, our sensory system is only capable of processing so much information at once; thus, we must always be selective about what parts of our sensory experience will be accentuated or emphasized, and which will fade into the background. Similar limitations are at play in ideational attention, in that there is only so much nervous energy that can be directed towards the ideational centres of the brain.

James believes that our subjective interests motivate attention. Charlene Haddock Seigfried articulates two features of these interests. First, an organism’s subjective interests “spontaneously arise from the organism because the animal’s interest in survival is brought to, not found in, the situation”; that is, they are a consequence of James’s view of the organism

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235 James, PP1, 284.
236 James, PP1, 284.
237 James, PP1, 284.
238 James, PP1, 25.
239 James, PP1, 403.
as essentially active.\textsuperscript{241} This would not be the case if the organism were a passive receptor of experience. Instead, an organism’s interests are brought to bear on a situation and determine which aspects of the organism’s field of possible experiences are most salient. Second, “such interests exhibit ‘teleology,’ by which James means the determination of goals to be sought by adopting appropriate means.”\textsuperscript{242} Seigfried further notes “these teleological interests both designate what is aimed at and provide the criterion for whether the goal has been met.”\textsuperscript{243} Each organism will have its own subjective interests, but this does not entail that they are solipsistic; rather, organisms will have subjective interests that resemble each other insofar as the organisms resemble each other (e.g. similar cognitive capacities) and differ according to the organisms’ differing experiences.\textsuperscript{244} Further, subjective interests distinguishes involuntary from voluntary attention: in cases of involuntary attention, the behaviour follows irrespective of the organism’s interests at the time.

Sometimes an organism’s subjective interests may conflict with each other. In this case, the organism will experience a feeling of effort. James gives the following example:

The idea A may be intrinsically exciting to us. The idea Z may derive its interest from association with some remoter good. A may be our sweetheart, Z may be some condition of our soul’s salvation. Under these circumstances, if we succeed in attending to Z at all it is always with expenditure of effort. The ’ideational prepararation,’ the ’preperception’ of A keeps going on of its own accord, whilst that of Z need incessant pulses of voluntary reinforcement - that is, we have the feeling of voluntary reinforcement (or effort) at each successive moment in which the thought of Z flares brightly up in our mind.\textsuperscript{245}

An obstruction occurs when an organism’s habits cease to lead to effective responses to its environment. This generates a feeling of effort as attention attempts to remain fixated on the

\textsuperscript{241} See section 1.2, above.
\textsuperscript{242} Seigfried, ibid.
\textsuperscript{243} Seigfried, 40.
\textsuperscript{244} Seigfried, ibid.
\textsuperscript{245} James, PP1, 451.
goal that it is trying to achieve. When attention is fixated on one idea, thought can flow freely and discharge into motor action unimpeded.\(^{246}\) When there are multiple competing ideas, thought and action are obstructed until one idea dominates consciousness through persistent attention to that idea.

### 3.2.3 Summary

James's account of attention has two distinguishing features. First, James believes that attention has causal efficacy in some cases.\(^ {247}\) The cases in which attention has causal efficacy

\(^{246}\) James, PP1, 451-2.

\(^{247}\) Both Peirce and Dewey hold some version of the cause-theory, but for very different reasons than James. Peirce's account of attention is logical rather than psychophysical or psychological. Peirce argues that attention has three effects on thought. First, it affects memory, as "a thought being remembered for a longer time the greater the attention originally paid to it." (Charles S. Peirce, "Some Consequences of Four Incapacities," in Nathan Houser and Christian Kloesel (eds.), The Essential Peirce, Volume 1, (Bloomington, IN: Indiana University Press, 1992), 46) Second, the greater the attention paid to an objective element of consciousness, "the closer the connection and the more accurate the logical sequence of thought." (Peirce, "Some Consequences," ibid.) Third, attending to a thought recover something forgotten. (Peirce, "Some Consequences," ibid.) Further, attention has the effect on the nervous system of producing habits. (Peirce, "Some Consequences," 47.) Habits produce sensations, and sensations produce voluntary action (Peirce, "Some Consequences," ibid.); thus, attention has the effect of producing voluntary action. This makes Peirce's account of attention a version of the 'cause-theory', but one of a very peculiar sort. A detailed comparison with James's account, or any other psychological account, is difficult in that the terms of the debate are so radically different.

Dewey's account of attention is more straightforward. Dewey defines action as "that activity of the self which connects all elements presented to it into one whole, with reference to their ideal significance; that is, with reference to the relation which they bear to some intellectual end." (Dewey, 133) There are
are those in which one experiences a feeling of effort while putting oneself into a state of ideational preparation. Second, James believes that attention is necessarily selective. This necessary selectivity leads an organism to experience the feeling of effort when there are two competing objects of attention that are equally interesting but are mutually exclusive. This account of attention has significant consequences for our understanding of action. I will now turn to these consequences.

3.3 Consequences for this Project

James’s cause-theory of attention has two major consequences for our understanding of action. First, it entails that volition is a form of attention, and not the other way around. Second,
its connection with our subjective interests entails that the feeling of effort implies and is implied by awareness of our actions. I will take these points in turn.

### 3.3.1 Volition is a form of attention

The first consequence that James’s cause-theory of attention has for our understanding of action is that it claims that volition is a form of attention. As seen in the analyses of Wundt and Bradley, the standard view at the time in which James was writing was that the psychological processes at work in attention were volitional processes. However, James’s account of attention makes the opposite claim: volition is a form of attention. James holds this view for the same reason as his opponents hold theirs: the same processes involved in both volition and attention, and they are more properly understood to be cases of attention.

That the same processes are involved in both volition and attention is evident once one considers James’s account of volition in light of his account of attention. Recall that volitional behaviour is always preceded by an idea about what to do. By one’s volitional processes acting on this idea, the behaviour implicit in that idea follow naturally unless impeded by some countervailing force. However, in acting on that idea, the organism is holding fast to a conception about what it should expect to experience. The relevant cases for volitional behaviour was those where the feeling of effort was present due to a conflict over potential courses of action. All of this bears striking similarity to James’s description of ideational preparation given above. Indeed, James claims “the essential achievement of the will […] is to ATTEND to a difficult object and hold it fast before the mind,”\(^{248}\) and that the “effort of attention is thus the essential phenomenon of will.”\(^{249}\)

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\(^{248}\) James, PP2, 562.

\(^{249}\) James, PP2, ibid.
The claim that volition is a form of attention will have significant consequences in the following two chapters. For now, I will turn to the other consequence that James’s cause-theory of attention has for our understanding of action: that the feeling of effort implies and is implied by awareness of our behaviour.

### 3.3.2 Effort and awareness

The second consequence of James’s cause-theory of attention for our understanding of action is that it entails that the feeling of effort implies and is implied by the awareness of our behaviour. In what follows, I demonstrate how the feeling of effort implies and is implied by awareness of our actions. The more intense the sensation of effort is, the more aware we are of our actions. We are more likely to identify ourselves as the cause of such actions and to consider them freely made. The less intense the sensation, the less aware we are of our actions. In such cases, we are less likely that we are to consider ourselves as their cause, and more likely to consider such actions determined.

#### a. Where there is effort, there is awareness

Whenever we experience the feeling of effort, we are necessarily aware of our behaviour. A consequence of the psychophysical foundation of the feeling of effort described in chapter two is that the feeling can vary in intensity. However, we must note James thinks that it is one’s consciousness that one is feeling when experiencing a strong feeling of effort, and specifically the awareness as the one responsible for one’s own behaviour. When one is in a situation where one must make a decision that is, to borrow terminology from elsewhere, momentous and forced, one is confronted with the realization that it is you making the decision, and once done cannot be undone. If a decision is required, then the situation is not going to resolve itself; in a sense, the world is waiting for your reaction.
For example, suppose that Peter has been in a job that he has despised for a long time and has resolved to quit the next time his boss, Mr. Lumbergh, demands that he work over the weekend. On the coming weekend, Mr. Lumbergh corners Peter just as Peter is leaving and informs him that he must work that weekend. Peter is faced with a choice. One possible course of action is to follow through with his plan and quit. The other is to continue to do what he normally does: suppressing his resentment and begrudgingly working through the weekend. All that Peter has to do to quit is say “I quit,” and that will be that, while the other choice requires no such declarative act. In that instant, Peter is experiencing a prime example of a conflict that leads to the feeling of effort. Both cases have their appeal to Peter’s psyche, albeit different appeals. The option of quitting has the benefit of removing him from future mistreatment by Mr. Lumbergh. However, as quitting would lead to unknown circumstances, it is difficult to predict what future experience will be like with respect to financial security or the ability to secure a new job elsewhere. The option of staying has the drawback of certain future mistreatment and lost weekends, things that Peter wishes to avoid. Yet, as James notes, one must not underestimate the power of prior behaviour and its influence on present behaviour. Peter’s life at work in the sense described in the previous chapter with respect to habituation or in the first chapter with respect to rationality: Peter can successfully predict the experiences that he will have if he stays, and lapsing into his prior behaviour is comfortable, inviting, and above all, easy. At the moment of his decision, he knows that he must make the decision, and the words must come from his mouth. Once done, it cannot be undone. Peter’s consciousness of himself as an agent, his awareness of being the source of the action, is never greater than at that moment.

This example gives an extreme case of the intense feeling of effort, but the same point holds true for all cases where the feeling of effort is present. The greater the effort that one experiences, the more conscious one is of being the instigator of the action. Any novelty that one experiences will lead to the feeling of effort, which in turn leads to greater awareness of
one’s status as an active agent. Thus, the feeling of effort implies awareness of one’s behaviour.

b. **Where there is no effort, there is no awareness**

Another consequence of the conception of habituation presented above is that whenever effort is not present, we are not aware of our behaviour. Recall that as an action becomes habituated, it is suppressed under the threshold of consciousness such that we are no longer aware of that action being performed. Habituation removes obstacles and potential for conflict, thus leading to no feeling of effort. A good illustration of this point comes from something uncovered by Russell Goodman in his book *Wittgenstein and William James*. In that book, Goodman reveals how James uses the term “finding ourselves” to describe situations where one realizes that one has engaged in, or is engaging in, certain behaviour only after or in the midst of the performance of that action.\(^{250}\) Goodman points to the following passage in the *Principles*:

> I sit at table after dinner and find myself from time to time taking nuts or raisins out of the dish and eating them. My dinner properly is over, and in the heat of the conversation I am hardly aware of what I do, but the perception of the fruit and the fleeting notion that I may eat it seem fatally to bring the act about.\(^{251}\)

There are a few key components to note before moving on. First is that as his dinner is “properly over,” he is not eating out of hunger. Second is that the perception of the fruit and having a ready-to-hand use for them is enough to bring the act about “fatally.”\(^{252}\) In this example, James’s mind is preoccupied with the conversation that he is having after dinner, and while he is the one reaching out, taking the raisins, and eating them, he is not aware of this fact.


\(^{251}\) James, PP2, 522-3.

\(^{252}\) James, PP2, 523.
until he finds himself doing so for whatever reason. There is no resistance to the act, which means that there is no feeling of effort, and thus he is not aware, or is at least only minimally aware, of himself eating the raisins.

There are some ways that one might be able to modify the example in order to demonstrate the relationship of the feeling of effort to consciousness. Let us specify that the food in the bowl is shelled pistachios. This adds a physical barrier that one must pass in order to get at the flesh of the nut. If one is especially adept at shelling pistachios, the amount of resistance that this barrier will put up will be minimal. While not as easy to eat as shelled nuts, they still require slightly more effort, and thus one may have to allocate more mental resources towards the nuts, which would increase the consciousness of the behaviour. This would be especially true if one comes across a particularly tough nut to crack, which would then make one more aware of one’s behaviour. That said, it may be the case that even though one has directed some mental resources towards nutcracking, if one is more fully engrossed with the conversation at hand, and the nutcracking does not demand such mental resources from you that it becomes impossible to attend to both at the same time, then one will experience greater conflict and will become more conscious of the behaviour. Thus, by modifying the example so that the nuts are shelled pistachios, we have a case with a small amount of conflict introduced, which in turn results in a greater degree of awareness of one’s action.

A second modification will make the relation between the feeling of effort and consciousness even clearer. Let us say that one is trying to lose some weight by refraining from indulging in your near-insatiable appetite for shelled pistachios. In this case, there is quite a bit of resistance that one might experience. On the one hand is one’s insatiable appetite for shelled pistachios, coupled with one’s habituated behaviour of eating those pistachios when offered. On the other hand is one’s desire to refrain from indulging, knowing that eating just one will result in the contents of the bowl disappearing. In this situation, there is a great deal of conflict because one is attempting to act against one’s habituated behaviour. There is very little
habituation of the chosen behaviour—that of refraining from eating the pistachios—and thus one will feel a great deal of effort in maintaining that course of action. Thus, in this case, there is a great deal of conflict and a minimization of habituation, leading to extreme consciousness of the behaviour in question.

Lastly, let us say that one finds pistachios revolting in smell and taste, and thus avoids them. One experiences no conflict in this situation. There is no conflict in potential courses of action, but rather a well-habituated response to bowls of pistachios; namely, ignoring them, as they do not hold your interest. Despite this being one’s well-habituated response, one is not aware that one is engaging in this behaviour. One is as conscious of not eating the pistachios as the person in the original example was aware of eating them, because one is engaging in a habituated behaviour that comes without resistance or conflict.

By modifying the parameters of the example to account for the amount of conflict, either physical or mental, that one may experience when confronted with a bowl of pistachios in a post-dinner conversation, we can clearly see the corresponding effect on the consciousness of the actions in question. A greater degree of conflict, generated either by physical resistance or having no ready-to-hand habituated response that can overcome all others, leads to a greater awareness of one’s actions. A lesser degree of conflict, either due to no physical resistance or engaging in one’s well-habituated responses, leads to little-to-no awareness of the behaviour at hand. Any increase in the feeling of effort is met with a corresponding increase in consciousness of our actions, and any decrease—and especially absence—of this feeling of effort results in behaviour of which we are not aware. If we lived a life free of novelty, resistance, or conflict between our ideas and our environment, if we lived a life purely of successful reflexive responses to the environment, then we would never be truly aware of our actions.
3.3.3 Summary

James’s account of attention has two significant consequences for our understanding of action. First, James claims that volition is a form of attention: attention to an idea of how to respond to the environment. It is a form of attention because the same processes are at play in both cases and those processes are better understood as attentional processes. Second, the relation of the feeling of effort to attention entails that the feeling of effort both implies and is implied by awareness of our behaviour.

3.4 Conclusion

In this chapter, I examined James’s account of attention and the ways in which it affects his account of action. First, I provided two accounts that were significant during James’s day; namely, those of Wundt and Bradley. James believed these accounts to be particular instantiations of the ‘effect-theory’, or the belief that attentional states are causally inert effects of other psychological and physiological processes. In contrast, James argued for a ‘cause-theory’ of attention, or one where attention can be causally efficacious in some cases. An examination of the particulars of James’s ‘cause-theory’ revealed that the cases in which attention can be causally efficacious are those wherein the organism experiences a feeling of effort while in a state of ideational preparation. The feeling of effort is generated by the conflict of multiple competing possible objects of attention. James’s account of attention had two significant consequences for our understanding of action. First, James’s account implies that volition is a kind of attention. Second, the relation of the feeling of effort to James’s account of attention entails that the feeling of effort both implies and is implied by the awareness of our behaviour.
The feeling of effort thus emerges as a “star-performer” in James’s account of action. A thorough treatment of the feeling of effort and its relation to action is the subject of the next chapter.
CHAPTER FOUR

THE FEELING OF EFFORT

The purpose of this dissertation is to defend the claim that James believes that the term ‘action’ refers to all behaviour whereby an organism pursues ends in order to adapt to its environment while under such conditions that the organism experiences a feeling of effort. In the previous two chapters, I have examined the three topics relevant to the question of action: volition, habituation, and attention. This clarified what James meant and why he believed the first two elements of that definition.

In this chapter, I shall make explicit the importance that the feeling of effort has for James’s account of action and how it comes to have such importance. First, I shall bring together threads found in the previous two chapters and provide an summative account of the psychophysics of the feeling of effort; that is, its physiological basis and its function in cognition. The importance of the feeling of effort for James’s account of action is a consequence of its function in cognition. Its function in cognition is to draw the organism’s attention so that it may use its cognitive abilities to remedy a disequilibrium between the organism’s habits and its environment. I will then describe three significant consequences this has for James’s account of action. First, it narrows James’s definition of action by helping pick out which behaviours of the organism are part of an action. Second, it makes James’s account highly context-sensitive. Third, it makes conscious behaviour the appropriate level at which to discuss action such that any means by which one ascribes actions must address the various standpoints from which one may approach the question separately.

I will now turn to the task of articulating the psychophysics of the feeling of effort based on the work done in the previous two chapters.
4.1 The Psychophysics of the Feeling of Effort

Although discussed in chapters two and three, it would be helpful at this point to state explicitly the psychophysics of the feeling of effort. I will discuss the physiological basis of the feeling of effort and its function in cognition in turn.

4.1.1 Its physiological basis

For James, the feeling of effort is an effect of the operation of the brain. External stimuli result in nerve-energy traveling into the brain. When this nerve-energy enters the brain, it immediately seeks to discharge through the path of least resistance. Pathways are created by the nervous energy cutting through the plastic matter of the brain; the more often a stimulus of a certain kind is experienced, the deeper the pathway will be.\textsuperscript{253} The pathway leads to other parts of the brain, some of which are responsible for cognizing the stimulus in a certain way, and some of which are responsible for motor responses to that stimulus.\textsuperscript{254} A well-worn pathway results in a habit, in which behaviour will follow from the stimulus with little-to-no input from the higher cognitive functions and with little awareness on the part of the organism. In cases where one meets a stimulus that one has met countless times before and has a very strong set of habits designed to respond to that stimulus, the feeling of effort will not be experienced.\textsuperscript{255}

In general, the feeling of effort arises when the normally efficient discharge of nervous energy is impeded in some way: either there is no habituated response associated with a particular stimulus, or if there are multiple competing, equally attractive responses to a stimulus. In the first case, the feeling of effort is the sensation of the nervous energy building up as it

\textsuperscript{253} See sections 1.2 and 2.2, above.

\textsuperscript{254} See section 1.2, above.

\textsuperscript{255} See section 2.2, above.
seeks to overcome the brain’s resistance to its impulse. In the second case, the feeling of effort is the sensation of being primed for multiple, possibly conflicting, responses, but there being insufficient energy to bring only one of those responses about. Both are essentially cases of the same thing: an equilibrium that existed between the organism and its environment has been disrupted in some way. The disruption can be caused by something outside of the organism or from within the organism. In the former case, some aspect of the environment has changed such that the organism’s habits are no longer effective. If one walks to one’s car only to find that it is missing, then the car’s absence is the cause of the disruption. In the latter case, the disruption could be caused by a change to one’s biological state (e.g. hunger), or because of the organism’s active powers. As noted in chapters one and two, James believed that the organism was essentially active in its engagement with the environment. Its desires, ends, and motivations may cause a disruption of the equilibrium between an organism’s habits and its environment, thus causing the feeling of effort.

James thus gives a physiological account of how the feeling of effort arises and what it denotes. Although James’s neurology is hopelessly out of date, I must reiterate that it does not affect the ability to use other aspects of James’s thought. As we saw in chapter one with respect to James’s functional approach to psychology, the physiological understanding of a mental phenomenon is secondary to understanding the function that the phenomenon has for the organism. As long as one is discussing the same feeling with the same function, the physiological understanding of that feeling can change. I will thus turn to the cognitive function of the feeling of effort.

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256 See section 2.2, above.

257 See section 2.2, above.
4.1.2 Its cognitive function

The feeling of effort performs the same functions in cognition regardless of the conditions under which it arises: it draws the organism’s attention to the conflict that is generating the feeling of effort. As a feeling, the feeling of effort is capable of piquing the organism’s interest, and therefore is capable of being an object of attention. If there were no feeling of effort that arose due to the breakdown of the equilibrium of organism and environment, the organism would be unable to attend to that breakdown and the disequilibrium would persist. Given that the feeling of effort cuts across experience in the same sense as a thunderclap breaks the silence, one’s attention will naturally be drawn to the circumstances prompting the feeling of effort.

The feeling of effort has no cognitive content itself, but rather serves as a signal to the organism that cognition is required to restore a state of equilibrium between an organism’s habits and the environment with which those habits mediate; that is, it involves cognition in cases where cognition is typically unnecessary. Recall that habituation works by suppressing behaviour under the threshold of consciousness such that the habituated behaviour may follow without the organism applying any of its cognitive abilities to the enacting of that behaviour. The feeling of effort only arises when those habits break down in one way or another. What was an unconscious, automatic process now becomes an object of interest for the organism, and that organism can direct its cognitive abilities towards the resolution of the problem.

The form of attention that the feeling of attention attracts further reinforces this point. As discussed in chapter three, the form of attention that relevant to overcoming problems in experience is ‘ideational attention’, the form that selects ends on the basis of subjective interests by making some ideas about how to proceed more prominent in consciousness than

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258 See section 2.2, above.
other ideas.\textsuperscript{259} Recall that for James, ideas are not atomic but contain a variety of associations and cognitive content. In this case, the most notable content is the awareness of the behaviour required to bring about that idea. Once an idea is selected, the bodily movements associated with the behaviour required to bring it about follow unhesitatingly, thus overcoming the conflict, restoring equilibrium, and eliminating the feeling of effort.

\textbf{4.1.3 Summary}

The feeling of effort is grounded in physiology and has a significant function in cognition. The feeling of effort arises due to the failure of one’s habits to mediate adequately between the organism and its environment. The feeling of effort indicates to the organism that it must bring cognition to bear on the situation in order to restore the equilibrium that was disrupted. The way that it does this is to draw the organism’s attention to the source of the conflict. The form of attention most relevant in this case is ideational preparation. The organism is thus able to apply its cognitive abilities to the situation in order to determine the best means to proceed.

A disequilibrium exists between the subject of the feeling of effort and what it does for James’s definition of action. The feeling of effort has now drawn my attention to that task.

\textbf{4.2 Effort and Action}

\textbf{4.2.1 Picking out actions}

The first implication that the feeling of effort has for James’s definition of action is that it helps pick out which behaviours of the organism are parts of an action. Consider the definition of action given above. Were the definition limited to ‘behaviours by which an organism pursues ends in order to adapt to its environment’, then one could conceivably claim that one’s heartbeat

\textsuperscript{259} See section 3.2.2, above.
and breathing are actions under any description, as they are required for the pursuit of any ends or the ability to adapt to its environment. This is counterintuitive and broadens the category of ‘action’ to the point of being useless.

The feeling of effort helps pick out which behaviours are parts of an action due to its function in cognition; namely, it draws an organism’s attention towards a disequilibrium between an organism’s habits and its environment. The organism’s cognitive functions thus brought to bear, the organism attends to an idea about how to overcome the conflict which caused that disequilibrium, thereby eliminating the feeling of effort. Further, attending to a conception of a response necessarily provokes some representation of the behaviour involved in the successful performance of response. This is due to the physiological basis of attention. When attention fixates on a particular conception of how to respond to the environment, nervous energy flows to the neural pathway corresponding to that response. Connected to that pathway are all of the pathways which have fed into that pathway in the past; this is a consequence of James’s neurological account of habit. The presence of neural energy in those tributaries excites a nascent awareness of the behaviour implied by the particular pathway of discharge. Once a sufficient amount of mental energy is present in a particular neural pathway, the behaviour implied by the particular pathway of discharge follows unimpeded. The action is thus the response (the end), of which only and all of the behaviour of which one is aware by attending to the idea of the response (the means) is part.

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260 See section 2.2, above.
261 See section 3.2.1, above.
262 See section 3.2.1, above.
263 See section 2.2, above.
A few extended examples will clarify this point. In each case, I will consider how the feeling of effort helps to pick out which behaviours of the organism are part of an action in question.

a. Example 1: Exercise

Suppose that one is not exercising and desires exercise. This disequilibrium generates the feeling of effort, and on that basis one exercises. Suppose that while exercising, one necessarily perspires. Is one’s perspiring-behaviour part of the action of exercising?

Through the function described above, the feeling of effort allows James to claim that the perspiring is not part of the action of exercising. In this case, one is attending to the idea of exercising, the idea being a representation of what one considers exercise and the means by which one exercises. The action is thus comprised of the goal of exercising and all of the behaviour necessary to bring about that goal. Perspiration does not bring about ‘getting-healthy-by-exercising’, despite being a foreseeable consequence, or even an indicator, of exercise. Perspiration is thus not part of the action of exercising. Note that this is not a necessary relation. If one’s desired end is to perspire, and one knowingly brings that about exercising, then the action is the perspiration. However, since the idea attended to contains the goal and how to achieve that goal, and the exercise was the means by which one planned to perspire, then the exercise is part of the action of perspiration; one may conceivably say that the action is ‘perspiration-by-exercise’.

To complicate matters, suppose that one has three exclusive, exhaustive, and equally attractive options for exercise: sit-ups, pull-ups, and chin-ups. Since one can only choose one form of exercise per day, one may experience the feeling of effort with respect to the choice between the three. Supposing that one does experience the feeling of effort at that point, it seems like there are two actions here: exercising and exercising-in-such-and-such-a-way.
However, since the exercise is completed by the method of exercise that one has chosen, it seems as though there is only one action: the exercise.

The feeling of effort helps resolve this confusion. As it was with the basic case, the action is the exercise, and bodily movements required for that action are part of it. Before one chooses the form of exercise, the action is underdetermined; one knows that one must exercise through some means, but the specific means are not present in the idea at the beginning of the action’s performance. Once one chooses, the action becomes fully determined and the bodily movements associated with the form of exercise are part of the action, while the bodily movements specific to the other two forms of exercise are not. Since having to choose a form of exercise is part of the action ‘exercise’, then the behaviours associated with that choice are part of that action as well. It is not the case that there are two actions, but rather one action, a part of which is extra effortful.

In both versions of this example, the feeling of effort helped pick out which behaviours of the organism are part of an action, thereby resolving some counterintuitive states of affairs that seem to arise with respect to the feeling of effort. In each case, the feeling of effort helped pick out what is an action and what is part of that action by indicating the point at which attention has been drawn to resolve an ideational conflict between behaviours. Since it is an ideational conflict, one must consider the action to be the end being pursued by the organism, and any bodily movements that contributes to the pursuit of that end is part of the action. As this point is foundational to James’s account of action, another clarificatory example is in order.

b. Example 2: Baking

Suppose that one desires fresh homemade bread, and on that basis bakes homemade bread. During the baking process is a stretch of time wherein no interaction is required. During this time, one loafed on one’s couch. On one hand, the loafing seems like it is not an action, as there is no preceding effort and very little activity. On the other hand, the loafing does seem like
an action, as is an adaptation to a set of circumstances that arose due to one’s bread baking. There is thus one action, loafing, that was part of the action of baking bread, but did nothing to contribute to the bread’s baking. This is counterintuitive.

In this case, the end that one wishes to attain is having freshly baked bread, and the means that one will achieve that end is baking bread. The action is thus baking bread, and any behaviours required for that action to be successful are part of the action. The question is thus whether one’s loafing behaviour is required for the bread to bake. The answer to this question is to be found in one’s mental state when one started baking bread and one’s experience when met with the period of inactivity. If one does not have loafing in mind as part of how one bakes bread, then it is not part of the action ‘baking bread’; a period of inactivity during bread baking is a side effect of the action similar to perspiration in exercise. If one does not feel any effort when met with the period of inactivity and loafs as a response, then the loafing is not only not a part of the action of ‘baking bread’, but also not an action at all. If one does feel effort, then whatever one’s response is an action, but not part of the action of ‘baking bread’. If one does have some behaviour in mind as a necessary feature of baking bread—e.g., one finds the period of activity so odious that one would forgo freshly baked bread if one did not have a book to read—then that behaviour is part of the action of baking bread. It is not an action in its own right because the feeling of effort is present in the decision to bake bread, which necessarily includes that behaviour; in other words, reading during the period of inactivity is simply part of what it means to bake bread. Once again, the feeling of effort once again helps clarify which behaviours of the organism are part of the action.

c. **Example 3: Goaltending**

Suppose that a goaltender in the National Hockey League is tending his net and makes a save. It happens so quickly—a fraction of a second—that he does not experience the feeling
of effort. We would still want to classify this as an action, despite the absence of the feeling of effort.

This case is more complex than the other two given above due to the lack of the feeling of effort at the time of the save. However, its solution is similar to the explanation given above for the choice between three methods of exercising. An action is the end being pursued and the means to accomplish that end. In such a case, the end is to keep the puck out of his net, and it is accomplished by a variety of possible methods: using his blocker, using his glove, or using his pads. When the goaltender first performs the action, the action is simply ‘keeping-the-puck-out-of-the-net’, and is open-ended with respect to how that can come about. This goaltender attending to that end puts himself into an anticipatory state about what kind of further stimuli to expect in the manner described in chapter three. Once the shot is taken, the action becomes ‘keeping-the-puck-out-of-the-net-by-using-my-blocker’. As noted above, an idea of what to do includes how to do it. The feeling of effort is not resolved by the action of tending goal; in fact, the indeterminacy of that action may cause the disequilibrium that causes the feeling of effort. We can therefore still consider the save to be an action because the action is the end being pursued and the means by which the end is pursued. The action is broader than the act of the save, but is comprised of the save plus the anticipatory state involved in tending the goal.

d. Summary

In each of these cases, the feeling of effort’s cognitive function had significant effects for our understanding of action; namely, it helped pick out which behaviours of the organism are part of an action. The feeling of effort arises due to a disequilibrium between the organism and the state of the world. The feeling of effort draws the organism’s attention to that disequilibrium.

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\[^{264}\text{See 4.2.1.a, above.}\]
and thereby bringing the organism’s cognitive abilities to bear on solving the conflict. Ideational attention is always directed at an idea of what to do—a state of affairs and the means by which to bring that state of affairs about. The means by which that state of affairs is brought about is the action, and the behaviours entailed by those means are part of the action. The feeling of effort, while having no cognitive content of its own, nor is it cognition proper, but rather it signals that cognition is needed to solve a particular problem. An action is comprised of the end that an organism wishes to attain and their understanding of how to attain that end. Any behaviours of the organism that the organism understands to be necessary to bring about the state of affairs are part of the organism.

4.2.2 Context-sensitivity

The second implication that the feeling of effort has for James’s account of action is that it makes the account context-sensitive. Consider again the limited definition of action described above; namely, ‘behaviours by which an organism pursues ends in order to adapt to its environment’. If this were the case, then it would seem as though one’s behaviour in dreams is action, despite the fact that one does not perform the bodily movements associated with that behaviour while dreaming.

The feeling of effort does not immediately help remedy this situation as it did in the previous section, as it is possible that one will experience the feeling of effort while engaging in dream behaviour. As stated above, the feeling of effort arises from a disequilibrium between an organism and its environment. It draws an organism’s attention to that disequilibrium so that the organism’s cognitive functions may be brought to bear on the cause of that disequilibrium. The organism’s attention fixates on an idea of how to resolve the disequilibrium, and the behaviour associated with that resolution follows. It appears as though dream cases satisfy all of this, except that the behaviour does not follow; thus, by the previous section, there is no action.
However, this fails to notice the context in which one’s dream behaviour is an action: that of the dream. This is important due to what Gale calls James’s ‘ontological relativism’.\textsuperscript{265} James is an ontological relativist because he holds that what is real for an organism at any given time is dictated by what has practical interest to that organism at that time.\textsuperscript{266} Gale argues that for James, an organism’s self at any particular time is the collection of practical interests active at that time; each organism has many selves corresponding to its many interests.\textsuperscript{267} For example, what is real for James qua scientist may not be real for James qua mystic. The set of real objects to a self constitutes that self’s world; there are thus as many worlds as there are selves.\textsuperscript{268} Gale notes, “[e]ach of these worlds is a self-contained unity; some even have their own ontology, conceptual system, presuppositions, and doxastic principles for making and justifying claims within that world.”\textsuperscript{269} Tensions may arise when one tries to unify these various selves, as judgements made in one world by one self may not carry over to another world or be true for another self.\textsuperscript{270}

James explicitly states that the dream world is not the same world as the waking world;\textsuperscript{271} it follows that the dream self is not the same self as the waking self. James notes that when one falls asleep and begins to dream, one ceases to attend to the various aspects of one’s waking circumstances and begins to attend to the circumstances of the dream. What is of interest to one’s dream-self is determined in part by those circumstances. If one is dreaming

\textsuperscript{265}Gale, 192.

\textsuperscript{266}James, PP2, 295.

\textsuperscript{267}Gale, 190, 222-5.

\textsuperscript{268}Gale, ibid.

\textsuperscript{269}Gale, 192.

\textsuperscript{270}Gale, 189.

\textsuperscript{271}James, PP2, 294f.
that one is a spy in Her Majesty’s Secret Service, then one will find different things in the dream to be of interest than those that one finds of interest while awake. The dream self may have different habits, dispositions, or attitudes that bear no resemblance to those of the waking self. Further, these things can change without warning and in a manner wholly unlike the manner in which they change in waking life. In the terms used above, the environment with which one engages while dreaming is not the same environment with which one engages while awake.

For one’s physical behaviour while dreaming to be part of the dream action, one’s physical behaviour must be part of the same world as the dream action. James gives us three reasons to believe that this is not the case: first, the quantitative difference in brain activity between wakeful and dream states suggest that one is not engaging with the waking world while dreaming; second, consciousness is continuous before and after a dream but discontinuous with the dream; and third, the waking world has no practical interest for the dreamer while dreaming. Thus, one’s physical behaviour while dreaming is not part of the dream action.

The quantitative difference in brain activity between wakeful and dream states suggests that one is not engaging with the waking world while dreaming. As noted in chapter two, external objects stimulate the sensory organs and cause nervous energy to rush to the brain. Once in the brain, nervous energy from the sensory organs first travels through the part of the brain responsible for habituated responses, which the higher parts of the brain subsequently either permit or inhibit. Relevant to the present purposes is that so long as we are conscious, we are constantly bombarded with sensory stimuli from all directions and to all of our senses. As James notes, “no part of [the brain] can be discharging without altering the tensions of all the other parts.” Engaging with the environment in waking life is characterized by a significant amount of brain activity: sensory stimuli direct nervous energy to the brain that discharges

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272 James, PP1, 24.

273 James, EP, 152.
through brain pathways into motor action unless it is inhibited by higher brain functions. The quantity of sensory stimuli ensure that this process is continuous whenever one is conscious.

The brain activity that is a persistent feature of waking life is not observed in someone who is dreaming. Even if the sensory organs send nervous energy to the brain, that nervous energy does not excite the same portions of the brain or have the same effects. If it did, then one would expect that, one should be able to elicit a habitual response from a dreamer by presenting her with a stimulus that would provoke such a response. Suppose that one said “Marco” in a room with someone who was dreaming and had the habit of saying “Polo” when she hears “Marco” in waking life. If the same brain activity occurred during dreaming as during awake, one should expect to hear “Polo” upon saying “Marco”. This would not just be true of this case, but for any stimuli for which the dreamer had a habituated response. Since the dreamer does not process sensory stimuli in the same manner as when she is awake and does not have the same brain activity as when she is awake, she is not engaging with the waking world while she dreams.

Another reason to doubt that the waking world is part of the dream world is that consciousness is sensibly continuous on either side of the dream but discontinuous with the content of the dream. This is in part because of the neurological basis of consciousness. The brain activity during periods of wakefulness leads to one’s experience to have a certain quality that is evident in all cases of wakefulness but absent during dreaming.\textsuperscript{274} James calls this the “quality of warmth and intimacy and immediacy” between conscious states of the same stream of thought.\textsuperscript{275} Wakeful mental states have a similar quality and similar content; dream content has a different quality to wakeful mental states and has dissimilar content to them. If one was engaging with the waking world while dreaming, one would expect that the content of the dream

\textsuperscript{274} James, PP1, 238-9.

\textsuperscript{275} James, PP1, 239.
would feel like waking experience during the dream, and continuous with consciousness on either side of the dream. While subjective, the ability to distinguish between the waking world and dreams is developed through a lifetime of comparing the continuity between waking states and their discontinuity with dream states.  

The last reason to doubt that the waking world is part of the dream world is that the waking body cannot be an object of attention for the dreamer while dreaming. The objects of a world are dictated by a self’s practical interest; that is, the context to which the self is responding and in which the self is pursuing ends. For the behaviour of one’s waking self to be part of the dream world, the dream self must be able to be affected by and able to affect the waking world. As argued above, were the dreamer to be engaging with the waking world while dreaming, then the dreamer would have a similar amount of brain activity as she has when she is awake. If the brain activity were similar and the dreamer able to affect the waking world, then one would expect a feeling of continuity between one’s waking states and one’s dream states, which one cannot experience because of the different mode of presentation of dreams and sensory data. Thus, there is no reason to believe that the waking world is part of the dream world, even in cases when some bodily movements occur due to an action in a dream.

We are now in a position to respond to dream cases in a general way. If the feeling of effort arises in a dream, it is due to the circumstances of the dream being such that the habits of one’s dream self has failed to mediate between one’s dream self and the dream environment. From the point of view of the dreamer while dreaming, there is an action. The feeling of effort experienced in the dream does not bear on the concurrent waking-behaviour whatsoever; the waking self inhabits a different world than the dream self. An extended example will clarify this point.

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276 James, PP2, 74.
a. **Basic case: sleeping soundly**

Suppose that one dreams that one confronts one’s boss about years of verbal abuse. One experiences the feeling of effort as one does this in the dream. In the meantime, one is sound asleep in one’s bed.

In this case, there appears to be effort without action; one is effortfully confronting one’s boss in the dream, but no corresponding bodily movements occur. However, the feeling of effort arose in the dream, under dream conditions and due to dream circumstances. Confronting one’s boss is an action, and, by the work done above, any behaviour of the dream self by which it brings this action about is part of the action. There is no action from the standpoint of the waking self, as no behaviour is observed.

b. **More complex case: sleep-talking**

Suppose that one has the same dream as before, but while dreaming, one enacts all of the behaviours that one is enacting in the dream; that is, one sleep-talks. Is the sleep-talking an action?

From the context of the dream, the same action occurs as before: confronting one’s boss through the dream self’s behaviour. The sleep-talking is only part of this action if the dream self had sleep-talking in mind as part of the behaviour necessary to bring about the action of confronting one’s boss in the dream. Since the dream self is unable to attend to one’s non-dream body, this is not possible. The sleep-talking is therefore not a part of the dream action of confronting one’s boss.

The sleep-talking is not an action from the point of view of the waking world either, as it does not fulfill the necessary criteria. For the sleep-talking to be an action, or part of an action, it would have to have been enacted due to attention being paid to it (or to some goal to which it leads) after the waking self had experienced a feeling of effort due to a disequilibrium between
the organism’s habits and its environment. As noted above, one is not engaging with the waking world while one is dreaming. There is insufficient brain activity for the waking self to be engaging with the environment; the waking world is not the practically interesting world for one’s dream self; one is not capable of pursuing ends in the waking world while one is dreaming. The sleep-talking cannot be an action, or part of the dream action, because of this.

c. **Most complex case: sleep-confrontation**

Suppose that one is at work and goes into the boss’s office to confront her for years of maltreatment. During the conversation, one falls asleep. Suppose that one begins dreaming immediately and faithfully recreates every aspect of the conversation as it happens. Suppose that one sleep-talks exactly how one responds in the dream. Through this process, one successfully confronts one’s boss in the waking world. Is this an action? If so, what behaviours are part of that action?

The case can be made that the feeling of effort experienced by the waking self prior to falling asleep is part of the context of the dream. If so, action in the context of the dream is confronting one’s boss, and all of the dream behaviours that contribute to the action are part of that action. The sleep-talking cannot be considered part of the dream action for two reasons: first, if the dream action is an action by virtue of the feeling of effort experienced by the waking self, then there was a particular means of accomplishing that end in mind. Falling asleep was likely not part of that action; thus, sleep-talking is not part of the action as it was not intended.

In the context of waking life, no action occurs after the point one falls asleep. In fact, James would reject the claim that the dream could faithfully recreate every aspect of the conversation as it happens. If this were the case, then one’s sensory organs would have to be engaged in their normal duties, sending nervous energy into the brain that then discharges into behaviour through the means described above. It is not just hearing that is salient to the recreation of every aspect of the conversation, but also one’s sight, one’s proprioceptive
awareness, and so on. This would require a level of brain activity that is not observed during dreaming. A better description of this case would be a trance or a hypnogogic hallucination.  

d. Summary

In each case, as long as one held the context in which the feeling of effort was experience in view, there was little difficulty determining which behaviours of the organism belonged to which actions, and what counted as an action in that circumstances. Since the feeling of effort results from a relation between the organism, its habits, and its environment, one must be careful to account for how different circumstances could affect one’s understanding of each of those elements. As Gale notes, confusions only arise when one attempts to unify the various selves and their various worlds. The dream world is not the waking world, and the dream self is not the waking self. When this is kept in mind, the difficulties for James’s account of action disappear.

4.2.3 The appropriate level of discourse

The third effect that the feeling of effort has for James’s account of action is that the appropriate level for discourse regarding actions is that of the conscious, lived experience of the organism—the level of reasons, intentions, and cognition. If the feeling of effort is the subjective experience of action, then actions cannot be understood from any level below subjective experience; that is, actions must be understood from the level of conscious behaviour. As stated in James’s definition of action defended throughout this project and explained with respect to volition and attention, all actions are performed in order to pursue some end or to resolve a situation in an organism’s experience. As such, actions should only be understood with

reference to the organism’s mental state at the time of performance. Considering an action from the level of bodily processes would fail to capture important aspects of the performance of an action; namely, the essentially active nature of an organism’s engagement with its environment. The reason for this is similar to reason James gave against psychological atomism in chapter one: any account of action approached from a level of discourse below conscious experience will be irredeemably artificial.

As an example, consider the case of a pitcher throwing a pitch in a game of baseball. There is a variety of descriptions of the mechanics of a pitch: a series of bodily movements, a transfer of energy from one object to another object, and so on. However, any such description would fail to capture what the action of throwing a pitch is like for the pitcher. The pitcher, being an active organism that pursues ends, had a particular mental state at the time of the pitch, none of which resembled any of the descriptions given above. Rather, the mental state was the pitch itself, e.g. ‘throw-a-fastball-down-and-away’. The mechanics of the pitch can be described in a variety of ways, such as being described as a series of bodily movements or in terms of the transfer of energy from the pitcher to the ball, and so on. It would be this way in most cases because of what James has said with respect to habit: as an action is habituated, only the stimulus and response register cognitively with the intermediate steps being suppressed under the threshold of consciousness. The only cases in which the intermediary steps may become apparent is if there is something wrong with the mechanics of the pitch, to which the pitcher would attend if the intended effect is not accomplished. The label of ‘action’ cannot cross the threshold of consciousness, but applies to all elements above it, which may change depending on the situation. Because the threshold of consciousness depends on the direction of attention, related events in a causal chain do not inherit the label of action; thus, even if one becomes aware of the fact that one is sweating as one pitches, one is not consciously focused on sweating, and therefore sweating is not an action. In sum, the label of ‘action’ ought only to be
applied to events the execution of which are above the threshold of consciousness, where the organism can experience the feeling of effort.

Claiming that conscious experience is the appropriate level of discourse for discussing action allows for actions to be meaningfully categorized and compared in a way that would be impossible in a reductionist account. If actions were considered from a level below the threshold of consciousness, such as with a neurological reductionist account, every response to every stimulus affects an organism’s brain in a different way than it would affect any other organism’s brain due to the semi-random nature of the creation of new pathways and the indeterminate nature of sensation. As James writes:

> Every sensation corresponds to some cerebral action. For an identical sensation to recur it would have to occur the second time in an unmodified brain. But as this, strictly speaking, is a physiological impossibility, so is an unmodified feeling an impossibility; for to every brain-modification, however small, must correspond a change of equal amount in the feeling which the brain subserves.\(^{278}\)

James concludes that “we never in strict theoretic accuracy [get the same sensation again] […] it would be true to say, like Heraclitus, that we never descend twice into the same stream.”\(^{279}\)

For James, it is literally true that one never experiences the same thing in the same way more than once, due to both oneself and the object changing over time, in part due to the encounters between the two objects.

We should not expect that action should work any differently from a Jamesean standpoint. If the designation of ‘action’ depended primarily on there being an exact and determinate brain-state, then it would be impossible to claim that two actions were the same or similar without engaging in an ad hoc abstraction that downplays the very basis upon which the designation depends. For example, despite there being similarities in terms of the areas of the brain that are excited in a similar order for an action of the same description, two brains are

\(^{278}\) James, PP1, 232-3.

\(^{279}\) James, PP1, 233.
never precisely the same, and so one is describing a family resemblance rather than a strict equivalence.\textsuperscript{280} However, we only know that the two actions in question ought to be considered of the same kind because of data not present in a neurological reduction or an explanation based on psychological atomism, but from considerations of intentions and observed results.\textsuperscript{281}

Let us return to the example of the pitcher from above to see how this is the case. If the level of action were determined at a level below the threshold of consciousness, then one would be hard-pressed to say that two different pitchers attempting to throw the same pitch were both engaging in the same kind of action when they did so. Suppose that Cy Young and Sandy Koufax are both throwing a fastball down the middle of the plate, and that their pitching mechanics are identical. Even with that assumption, it does not follow, under James’s understanding of physiology, that the journey of the nervous energy through the brain of Young would be identical to that of Koufax; indeed, due to their greatly differing life experiences, there would be a vast number of associations that would differ between the two. Once one abandons the assumption that their mechanics are identical (as it is an impossibility), an even greater amount of variation would be introduced between the two pitchers that make it even more difficult to claim that the two are performing the same action without referencing in some way the intended result or the conscious experience of the two pitchers. The only point at which it makes sense to talk about two actions being the same is at the level of conscious experience, where intentions are formed and the feeling of effort is felt.

\textsuperscript{280} Note that this is merely an extension of the functionalist approach that James employs. See section 1.1, above.

\textsuperscript{281} In this we see the seeds of behaviourism. Since intentions are not present to an external observer and physiological variances make classification of psychological phenomena difficult, it is easy to make the jump to looking only at the results of an organism’s behaviour as an indication of its inner workings.
This is not to say that certain standpoints are useless for James’s account of action, but rather that standpoints have to be accounted for and kept separate. The dangers of failing to account for one’s standpoint have been explored in chapter one with respect to the psychologist’s fallacy\textsuperscript{282}; the effects of such a failure have been seen throughout this chapter.\textsuperscript{283} Contemporary action theorist Jennifer Hornsby has made a similar argument. Hornsby argues that many disputes over action are generated from the two points of view from which one may approach action: the personal point of view, which ascribes action on the basis of an agent’s reasons and beliefs; and, the impersonal point of view, which ascribes action on the basis of the event’s position in a causal chain and a description of the world’s causal workings.\textsuperscript{284} Hornsby argues that while it is possible to explain actions without referring to an agent’s beliefs, desires, or intentions, it would not be possible for someone to identify an action without operating with such concepts available.\textsuperscript{285} She argues that part of the philosophical problem with linking actions with effects rests on our understanding of the relationship between the two, and if one eliminates talk of such concepts not just from one’s talk but from one’s thinking, one becomes incapable of sorting out which actions belong with which effects.\textsuperscript{286}

Hornsby’s argument for the primacy of the personal standpoint is not the same as James’s position that subjective experience is a necessary feature of an account of action. While Hornsby does occasionally mention the subjective markers of action, her explanation of action along personal lines is still very objective. The awareness of one’s reasons for φ-ing or

\begin{itemize}
  \item \textsuperscript{282} See section 1.3.3.c.i, above.
  \item \textsuperscript{283} See section 4.2, above.
  \item \textsuperscript{285} Hornsby, 295.
  \item \textsuperscript{286} Hornsby, 295-6.
\end{itemize}
beliefs that would entail φ are what constitute an action being an action, or how we come to consider an action to be rational. Yet this still has the air of being an objective analysis of what an action is. Just as she criticized those who advocated an impersonal point of view for relying on the concepts which they explicitly set out to exclude, Hornsby has advocated a particular view of action without asking how we as individuals come to consider an action to be an action in the first place; that is, what makes an action my action and not someone else’s. What is missing is an account of the subjective experience of action to support her personal account of action. That said, Hornsby has revealed a flaw in James’s reasoning. James does not distinguish between a personal and an impersonal objective account of mental states, but rather treats all objective accounts impersonally.287

This has a significant consequence for any method by which we ascribe actions on the basis of James’s account of action. As we saw earlier in this chapter, failing to account for one’s standpoint when ascribing action leads to avoidable problems. The method by which we ascribe actions must consider actions from three standpoints: a subjective standpoint that considers actions on the basis of the organism’s conscious awareness; an objective standpoint that considers actions from outside the organism and interprets the organism as a conscious agent with motives, beliefs, and intentions (I will refer to this as the ‘objective-personal’ standpoint); and, an impersonal part that considers actions from outside the organism and interprets the organism as a physical system with certain capacities such as habituation or attention (I will refer to this as the ‘objective-impersonal’ standpoint). Such a method will be discussed in the following chapter.

287 See section 1.1.2, above. An explanation for this may be that the associationist psychologists against which James was arguing invariably explained the personal in terms of the impersonal.
4.3 Conclusion

In this chapter, I considered the effects that the feeling of effort has on James’s account of action. Its effects all followed from its function in cognition. The feeling of effort’s function in cognition is to draw the organism’s attention to a disequilibrium that exists between the organism’s habits and its environment; namely, a breakdown of the mediation that the former normally accomplishes with the latter. Its effects were wide ranging. First is that it narrows James’s definition of action by helping pick out which behaviours of the organism are part of an action. Second, it makes James’s account highly context-sensitive. Third, it makes conscious behaviour the appropriate level at which to discuss action and insists that any means by which one ascribes actions keeps the various standpoints from which one may approach the question separate.

Three tasks remain for the final chapter of this project. First, I must articulate James’s account of action in detail, along the lines proscribed in chapter one. Second, I must provide a means by which we can ascribe action on the basis of the work in this chapter and the fuller account of action. Lastly, I will demonstrate a few ways in which James’s account of action could be of use to contemporary action theory.
CHAPTER FIVE

ACTION

Throughout this dissertation, I have been defending the view that for James, the term ‘action’ refers to all behaviour whereby an organism pursues ends in order to adapt to its environment while under such conditions that the organism experiences a feeling of effort. In chapter one, I examined four commitments that set James’s approach to psychology apart from the standard approach of his day. Each of these four commitments was important to James’s account of action. They also necessitated an examination of the three mental operations that James believed were integral to action—volition, habituation, and attention—which were the topics of chapters two and three. In each case, the feeling of effort emerged as the subjective experience of those mental operations. Given that the three mental operations are all present in action, and the feeling of effort was the subjective experience of those operations, in chapter four I demonstrated that the feeling of effort was the subjective experience of action.

Three issues yet remain. First, while the work done in the previous three chapters explains the three elements of James’s definition of action, it does not constitute a full account of action by James’s own standards. James requires answers to specific questions; in this chapter I shall bring together the work of the previous chapters to answer those questions. Second, defining action does not explain the means by which we are to ascribe actions. Third, this project is of merely historical interest if there is no tangible benefit to action theory. In this chapter I thus answer three questions: ‘what is James’s account of action?’, ‘how do we assess actions on the basis of James’s account?’, and lastly ‘what does James’s account mean for contemporary action theory?’ Once these questions are answered, this project shall be complete.
I will now begin by providing the details of James’s account of action on the basis of the work done in the preceding chapters.

5.1 James’s Account of Action

The first question left for this project is ‘what is James’s account of action?’. As noted above, the definition of action used throughout this project is insufficient by James’s own standards of what a sufficient account of a mental phenomenon entails. A sufficient account of action must address all of the points determined in chapter one with relation to James’s functional approach to psychology. These points are: the subjective experience of action; what action enables an organism to do that mere behaviour would not; the mental and physical conditions that enables that functionality; and, how changes in conditions affects that functionality. In James’s terms, we must determine the phenomenon of action and its conditions. I will address these in turn.

5.1.1 The phenomenon...

The ‘phenomenon of action’ refers to two things: the subjective experience of action that distinguishes it from mere behaviour and what action enables an organism to do that mere behaviour would not.

The subjective experience of action is the feeling of effort. An organism experiences the feeling of effort whenever there is a disequilibrium between its habits and its environment. This may happen because the response to an environmental stimulus is unhabituated or there are multiple possible, equally attractive possible responses.288 It may also happen because the means to pursue an end is unhabituated or the ends themselves are in conflict.289

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288 See section 4.1.1, above.

289 See section 4.1.2, above.
Action enables organisms to mediate between its subjective interests and the environment, whereas mere behaviour does not. For James, mere behaviour is essentially reactive, and in such cases, the organism’s subjective interests play no role in bringing about the behaviour in question. Consider James’s account of involuntary attention, given above. The behaviour that results from a sudden loud noise only does so because of how the organism processes such stimuli, irrespective of the organism’s interests at the time. Mere behaviour could not mediate between an organism’s subjective interests and the environment because it supplies no means to pursue those interests within the environment. In action, the cause of behaviour is the idea of what the organism intends to do, upon which its volitional processes then act. Since the behaviour originates with the organism rather than the environment, the organism is capable of living a live beyond merely reacting to stimuli wherein it can pursue remote ends.

5.1.2 …and its conditions

The conditions necessary for action are different depending on whether one is talking about the capacity to act in general or about executing a particular action specifically.

The conditions necessary for action in general is that the organism must be capable of having subjective interests and must have a nervous system capable of producing the feeling of effort. If an organism is not capable of having subjective interests, then it is not capable of pursuing ends on the basis of those interests. This excludes inanimate objects from having actions. If the subjective experience of action is the feeling of effort, then in order to perform actions, an organism must have a nervous system capable of producing that feeling.

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290 See section 3.2.2, above.

291 See section 3.2.1, above.
The latter claim has the extra effect of ensuring that James’s account of action lacks an anthropocentric bias. As noted above, James believed that comparative psychology was a rich field that yielded many insights regarding the relation of human consciousness to that of non-human animals; James thought it was a difference of degree, not kind, even though groups with different degrees of consciousness could not comprehend what each other’s subjective experience would be like. If a condition necessary for action in general is that an organism must have a nervous system capable of producing the feeling of effort, then any organism that has such a nervous system is capable of action. James anticipates this in the opening chapters of Principles when discussing the differences between frogs and air bubbles trapped in an inverted glass jar. James writes:

Suppose a living frog in the position in which we placed our bubbles of air, namely, at the bottom of a jar of water. The want of breath will soon make him also long to rejoin the mother-atmosphere, and he will take the shortest path to his end by swimming straight upwards. But if a jar full of water be inverted over him, he will not, like the bubbles, perpetually press his nose against its unyielding roof, but will restlessly explore the neighborhood until by re-descending again he has discovered a path around its brim to the goal of his desires.292

We observe the frog exerting energy to pursue its goal of escaping the jar, whereas we do not see the bubbles doing the same. While including non-humans in the pool of potential agents, this condition also excludes any living beings without nervous systems or with nervous systems incapable—or no longer capable—of producing the feeling of effort.

The conditions for executing a specific action are instantiations of the general conditions for action: the organism must be capable of performing the intended action and the feeling of effort must be present at some point during the performance of the action.

292 James, PP1, 7.
5.2 Ascribing Action

What actions are and how we are to determine whether a particular case is an example of action are different questions. The previous chapter revealed three ways in which the feeling of effort affected James’s account of action; it is here that their effects make themselves known most clearly. The feeling of effort is the means by which James’s account of action can pick out which behaviours of an organism is part of an action. It also requires sensitivity to the context in which the feeling of effort arose and standpoint from which one is considering the behaviour in question. The means by which we may ascribe action on the basis of James’s account of action thus has three aspects: a subjective aspect, an objective-personal aspect, and an objective-impersonal aspect. A general statement of the method will require relating these aspects in the appropriate manner. I shall discuss the three aspects required of the method before turning to the general statement of the method.

5.2.1 The subjective aspect

The first aspect to be discussed is the subjective aspect. This aspect considers only what action is like for the organism undertaking the action as it undertakes it, from the point of view of the organism; it is the organism’s conscious awareness. The subjective aspect (S) is thus:

\[ S: \phi \text{ is an action for } x \text{ iff } \phi \text{ feels like an action to } x \text{ while } x \text{ is } \varphi\text{-ing.} \]

In accordance with the work done in previous chapters, the salient feature that will make \( \phi \) feel like it is an intentional action is the presence of the feeling of effort either prior to or while one is \( \varphi\text{-ing.} \) This part of James’s account does not require, and in fact prohibits, any external influences being brought to bear in order to determine whether or not an action was performed.
intentionally; indeed, that would miss the point of this part being about subjective. Regardless of one’s view of neurology, psychophysics, or metaphysics, as long as x felt the feeling of effort while φ-ing, regardless of what caused the feeling of effort to come about, then from this standpoint, one must grant that one’s action was intentional.

5.2.2 The objective-personal aspect

Of course, the subjective aspect does little to assist us in determining whether the behaviour of others are actions. The method for determining whether a particular case is an action must therefore also have an objective-personal aspect. This aspect considers the behaviour in light of the context in which it is performed and what the bystander infers about the organism performing the action, including its motivations, mental states, and so on. It considers the organism to be a conscious agent rather than merely a physical system. The objective-personal aspect (P) can be summarized in the following manner:

\[
\text{P: } \text{x's } \varphi\text{-ing can be considered an action by } y \text{ if } y \text{ believes that it is likely that } \varphi \text{ felt like an action to } x \text{ while } x \text{ was } \varphi\text{-ing.}
\]

The objective-personal aspect can be summarized in such a manner because of the feeling of effort's subjective nature and its centrality to James’s definition of action. The feeling of effort cannot be experienced from an objective standpoint, but only inferred from a comparison with what one would expect to experience oneself if put in a similar situation. The objective-personal part is essentially an act of comparative psychology: one knows what actions are like for oneself, so if one sees that another is similar in relevant ways, one can infer that the subjective experience is similar. If it appears as though the organism is conflicted or is attempting different approaches to the same problem, then we can reasonably expect that it is experiencing the feeling of effort and can consider its behaviour to be an action on that basis.

\[293\] Such considerations will naturally be relevant for other parts of this method. See 5.2.3, below.
5.2.3 The objective-impersonal aspect

The last aspect of the method by which we assess actions is the objective-impersonal aspect, which approaches actions from the standpoint of the psychophysical conditions present at the time of an action’s execution. The objective-impersonal aspect (I) is as follows:

\[ I: \ \phi \text{ is an action for } x \text{ iff the psychophysical conditions for } \phi \text{ to feel like an intentional action to } x \text{ were met when } x \text{ was } \phi-\text{ing}. \]

A consequence of James’s functionalist approach to psychology is that this aspect is technically neutral with respect to the specific psychophysical system that one might use. One might use an account of psychophysics similar to that found in chapters two and three, but one need not. Any view could be used in its place just as long as it is a psychophysical account (as opposed to a materialist reductionism or an idealist transcendentalism) and that it preserves the centrality of the feeling of effort to its account of action.

5.2.4 General statement of the method

A general method for assessing action requires relating the three aspects appropriately. The first point to note is that the most salient aspect of the method is context-dependent. The subjective part is only available to oneself as one is performing the action in question; therefore, if one is assessing another’s behaviour, or even assessing one’s own behaviour later, the objective-personal part is the only one available. Given that the appropriate level of discourse is that of conscious behaviour, i.e. the level of reasons, the conditions found in at least one of these two parts must be satisfied in order to consider a case of behaviour an action. Despite being at a level of discourse below that where it is appropriate to talk of action, the objective-impersonal part plays an important part in the assessment of action in that it safeguards against
mistaken reports or illusory experience. That is, even if an example of behaviour seems like an action, it cannot be considered the case if the psychophysical conditions for action were present at the time. Consider the dream cases discussed in the previous chapter. When considered from the standpoint of the non-dream body, the psychophysical conditions required for sleep-talking were not met while one was dreaming; one is not engaging with the waking environment, pursuing ends within that environment, and neither is one’s attention directed towards the environment. From the point of view of the dreamer as she is dreaming, the feeling of effort in her dream may perform the same function as it does when she is awake; she may consider her dream-behaviour action on that basis. The psychophysical conditions for her waking behaviour to feel like an action were not met; thus, the dream action is not an action in the context of the waking self, for objective-impersonal reasons.

We are now in a position to provide a general statement of the method by which we can assess whether behaviour is action (A):

\[ A: \phi \text{ is an action iff either (} \phi \text{ felt like an action to } x \text{ as } x \text{ was } \phi - \text{ing (subjective)) OR (y believes that } \phi \text{ felt like an action to } x \text{ as } x \text{ was } \phi - \text{ing (objective-personal)) AND (the psychophysical conditions for } \phi \text{ to feel like an action to } x \text{ were met as } x \text{ was } \phi - \text{ing (objective-impersonal)).} \]

5.2.5 Summary

I have now answered the second of the three questions framing this chapter. We attribute the label of ‘action’ to behaviour if it satisfies the conditions described above. One considers cases of one’s own behaviour action if it either feels like it at the time or if it felt like it at the time and if the psychophysical conditions for action were present at that time. One considers other people’s behaviour action if one expects that it felt like it at the time for that organism and if the psychophysical conditions for action were present at that time. This is the case because of the centrality of the feeling of effort to James’s
account of action, his functional approach to psychology, and the work done in the
previous chapters.

I will now turn my attention to the third question: ‘what does James’s account of
action mean for action theory?’.

5.3 Consequences for Action Theory

It is now the appropriate place in this project to consider whether James’s account of
action has lived up to the promise indicated in the introduction; as stated above, this project
would be of merely historical interest if it did not have anything to offer to contemporary action
theorists. In this section, I will argue that the James’s account of action does not offer a viable
alternative to the standard view. There are two reasons for this. First, despite the differences in
terminology and approach, James’s account of action is an early version of the standard view.
Second, James’s account of action does not offer any respite from the most significant criticism
of the standard view; namely, deviant causal chains. I shall then argue that the value that
James’s account has for contemporary action theory does not come from its ability to solve any
of the traditional criticisms of the standard view, but rather from its ability to make James’s work
relevant to mainstream analytic metaphysics.

I will now move to a discussion of the standard view and demonstrate how James’s
account is a version of that view.

5.3.1 James’s standard view

The standard view of action is an event-causal account of action. Michael Smith
presents a clear formulation of this position. Smith states that actions
are those bodily movements that are caused and rationalized by a pair of mental states: a desire for some end [...] and a belief that something the agent can just do, namely move her body in the way to be explained, has a suitable chance of making the world the relevant way.\[294\]

We may take three things from Smith’s definition of action. First, the standard view is a causal view of action because it ascribes action to bodily movements based on their having an appropriate causal antecedent. Second, the appropriate causal antecedent is the pair of mental states—the desire and the belief—which, taken together, constitute the agent’s intention to move its body in such a way to achieve its desired end. Third, implicit in Smith’s statement is the belief that actions are events that are caused by other events. The mental states that cause the bodily movements are events, and the bodily movements themselves are events. Taken together, action is ascribed on the basis of bodily movements having a causal history of a certain kind: there was an intention which caused bodily movements.

Despite the differences in terminology and approach, James’s account of action is also an event-causal account. It is a causal account because the distinguishing feature of actions is that they have a causal history of a certain kind. For an organism to experience the feeling of effort, there must be a breakdown of its established habits while engaging with its environment. The organism’s habits are a product of the ways in which it has responded to the environment in the past. The feeling of effort draws the organism’s attention, which causes the organism’s cognitive functions to be brought to bear on the cause of that breakdown. Attention fixes on the particular conception of how to proceed, which then causes the organism to behave in a certain way so as to bring about that conception. Further, this account is an event-based causal account because each step in the causal chain is an event: the breakdown of habits, the

disequilibrium, the feeling of effort, the ideational attention, and the resultant behaviour are all events. James’s account is thus a version of the standard view.

That James’s account is a version of the standard view is noteworthy in and of itself. The earliest formulation of the standard view is usually considered to be that of Donald Davidson in the 1970s, but James’s account was articulated over half of a century before then. Further, James’s account of action shares both of the central features of Davidson’s account. Davidson’s account of action has two central features: first, that an explanation of an agent’s reason to act is a form of causal explanation; and second, that, following G. E. M. Anscombe, any action is amenable to more than one correct description.

James’s account of action shares both of those features. As noted in the previous chapters, James holds a reason to φ to be a tendency to φ when met with the appropriate stimulus. The behaviour entailed by φ follows naturally from one’s reason to φ if it is not met with a competing reason for a different action or other inhibitory forces.295 An explanation of reasons is thus a causal explanation for James. Further, it is not a stretch to claim that James held that any action is amenable to more than one correct description. James’s articulation of the psychologist’s fallacy and his insistence on maintaining the proper standpoint is motivated in part by James’s understanding that both descriptions of the mental phenomena in question are correct and only lead to issues when the standpoints are confused.296

Thus, not only is James’s account of action a version of the standard view, but it also has all of the features of the view of action that has dominated the field since the mid-twentieth century. Unfortunately, one of the features that it shares with that view is that it is susceptible to the problems posed by deviant causal chains. This makes James’s account of action unsuitable

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295 See section 2.2.1, above.

296 See section 1.3.3.c.i, above.
as an improvement on the standard view. I will now turn to an examination of how deviant causal chains are problematic for the standard view and James’s version of it.

5.3.2 Deviant causal chains

Deviant causal chains are cases in which: (1) the agent intends to φ, (2) what happens is in accord with what one intends to do by φ-ing, (3) what happens was caused by the intention to φ, but (4) what happens was not intentional. In short, deviant causal chains are cases in which bodily movements qualify as actions by the standard view, but the bodily movements clearly not actions. Consider an example provided by Frankfurt. Suppose that there is a man at a party who intends to spill his drink to signal to his co-conspirators that it is time to enact their plan. This intention makes the man anxious, which in turn causes his hand to tremble, thus spilling his drink and signaling that it is time to strike. The cause of the man spilling his drink is the intention to spill his drink, but spilling his drink was not intentional; rather, the spilling of his drink was an accident caused by the anxiety brought about by the intention to spill his drink.

Deviant causal chains are problematic for the standard view because they fit the criteria for action but are clearly not actions. The man intends to spill his drink, and this intention causes the drink to be spilled. However, it does not cause the drink to be spilled in the normal way. Instead of the intention causing the bodily movements that bring about the spilling, the intention causes anxiety, and the anxiety causes the bodily movements that bring about the spilling. The standard view must make the highly dubious claim that the spilling of the drink was an action.

James’s account of action does not avoid deviant causal chains. The man attends ideationally to a particular conception about what to do, and that ideational attention causes the

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297 Harry Frankfurt, The Importance of What We Care About, (New York: Cambridge University Press, 1998), 70.

298 Frankfurt, ibid.
behaviour implicit in that conception. However, in this case, the ideational attention does not cause the behaviour in the right way. Instead of the ideational attention causing the behaviour that brings about the spilling, it causes anxiety, which in turn causes the behaviour that brings about the spilling. Thus, James’s account of action must make the same highly dubious claim that the spilling of the drink was an action.

Thus, not only does James’s account of action share many of the same features as the standard view, it shares some of its weaknesses as well. Action theorists will not find anything in James’s account of action that they cannot find elsewhere. That, however, is remarkable in its own right. In James’s account of action, we have an early version of the standard view that has gone unnoticed by mainstream contemporary analytic metaphysics. The value of James’s account of action is a consequence of that remarkable fact. I will now turn to a consideration of how this is the case.

5.3.3 The cash-value of James’s account

The value of James’s account of action is in its status as a precursor to the standard view. There are three major upshots of James’s account of action: first, it makes James’s work relevant and approachable for contemporary action theorists; second, it gives action theorists access to a rich intellectual tradition; third, it makes room for dialogue between the mainstream analytic and pragmatist traditions. I will take these in turn.

a. Relevance and approachability

The first upshot that James’s account of action has is that it makes James’s work relevant and approachable to contemporary action theorists. Action theorists have traditionally overlooked James. It is easy to see why this is the case: his vocabulary is foreign; his psychology and physiology is outdated; and, he often seems to be operating with concepts (e.g. the Will) that philosophers have thoroughly repudiated in the intervening years. However, once
one has completed a careful examination of James’s psychology, understanding it on its own
grounds and in the appropriate context, there is very little that distinguishes James’s account
from the standard view that currently enjoys a position of dominance.

The concept of action was central to James’s philosophy—it is the ‘πραγμα’ in
‘pragmatism’. Given that James’s account of action is a version of the standard view, current
action theorists may consider James’s later philosophical work as an attempt to extend the
standard view of action into different areas of philosophy. I leave action theorists to decide what
to incorporate from James’s work into their own, but such an incorporation is only made
possible by the work done in this project.

b. Access to a tradition

Another upshot of James’s account of action being a case of the standard view is that it
gives action theorists access to a rich intellectual tradition that extends beyond James in both
directions. I shall take them in turn.

As demonstrated throughout this project, James was responding to a century and a half
of failed psychological inquiry. By studying the context in which James developed his version of
the standard view, contemporary action theorists can recognize the problematic aspects of
earlier psychologists against which James was arguing (e.g. an overemphasis on structure) and
in so doing avoid reintroducing such problems into their own work.

James’s effect on the discipline of psychology cannot be overstated. Although
psychology has moved past many of the specifics of James’s account, the approach that led to
James’s account of action has been absorbed into the guiding principles of psychological
inquiry. This is explicit in the work of later functional psychologists such as Angell or Dewey, but
is implicit in later psychology as well. By determining the effect that James’s account of action
had on the development of psychology, action theorists may be able to show how the standard
view has informed not just later psychology, but contemporary analytic metaphysics as a whole.
c. Building bridges

The last upshot of James’s account of action being a version of the standard view is that it opens a space for dialogue between contemporary action theory and the pragmatist tradition.

A consequence of James’s account of action being a version of the standard view is that if one accepts James’s account of action, one *ipso facto* accepts a version of the standard view. This makes contemporary analytic metaphysics closer to pragmatism, and vice versa, than either group is usually willing to admit. It is beyond the scope of this project to defend the claim that pragmatism, especially of the Jamesean variety, is best understood as a subset of mainstream analytic philosophy, but the work done in this dissertation is a strong starting point for making such a case.

5.3.4 Summary

In this section, I have considered if James’s account of action made good on the promise that it showed at the outset of this project. First, I argued that the value of James’s account of action is not in its status as an alternative to the standard view because it is a version of the standard view. Second, I argued that its value is also not as an improvement to the standard view because it does not present a significant advantage with respect to some of the standard view’s greatest challenges, specifically the challenge posed by deviant causal chains. Finally, I argued that its value comes from its status as an overlooked precursor of the standard view. There are three upshots that James’s account of action has due to this status: first, it makes James’s work relevant and approachable for contemporary action theorists; second, it gives contemporary action theorists access to a rich intellectual tradition to which it previously did not have access; and finally, it opens a space for dialogue between contemporary action theory and pragmatism.
5.4 Conclusion

In this chapter, I have answered this project’s three remaining questions. First, I provided a full treatment of James’s account of action to satisfy the requirements set forth by James himself, as seen in chapter one. The phenomenon of action is constituted by its subjective experience and the function it has for the organism; these were the feeling of effort and the ability to pursue ends, respectively. The conditions of action are to have a nervous system capable of choosing ends and producing the feeling of effort. Second, I provided a means by which we can ascribe action on the basis of James’s fuller account of action and the conditions imposed on the method by the work done in the previous chapter. The means by which we ascribe action has three aspects: a subjective aspect, by considers an action from the view of the organism’s conscious experience; an objective-personal aspect, which considers an action from outside of the organism but treats the organism as an active agent; and, an objective-impersonal part, which considers action from outside of the organism but treats the organism as a closed physiological system. Lastly, I considered ways in which James’s account of action deviated from the standard view of action in order to show how James’s account of action may be attractive to contemporary action theorists. The work of this project is thus complete.
CONCLUSION

6.1 Restatement of Position

The purpose of this dissertation has been to defend the claim that James defined action as any behaviour by which an organism pursued ends in order to adapt to its environment under such conditions that it experienced a feeling of effort.

The defence of this claim was framed by James’s scientific approach to psychology, as examined in chapter one. James’s functional psychology oriented our investigation away from the structure of action and towards the function that action has for those who have them. James’s commitment to evolution. James’s commitment to evolution directs us to consider functions in terms of how they help the organism adapt to its environment. This makes an organism’s ends of central importance to James’s definition of action. James’s unique brand of introspection pays close attention to subjective experience and requires us to take such experience seriously when describing mental events. Finally, James’s appeal to psychophysics requires a particular approach to psychological issues but also requires minimal metaphysical commitments, allowing him to remain neutral with regard to broader metaphysical questions. Another effect of this investigation is that it revealed the three psychological processes relevant to a Jamesean account of action: volition, habituation, and attention.

Volition and habituation were discussed in chapter two. James’s account of volition differed from that of the standard view of his day in that James advocated a kinaesthetic account of volition instead of an innervationist account. A kinaesthetic account holds that the qualitative difference in volitional action is an afferent ‘feeling of effort’ instead of an efferent ‘feeling of innervation’. The mechanism by which we interact with our environment and subsequently adapt to it is habituation. Through habituation, behaviour is suppressed beneath the threshold of
consciousness such that our mental energies can be directed elsewhere. This has the benefit of allowing more complex responses to the environment, which assists in adaptation and survival.

Attention was the topic of the third chapter. James again differed from the standard view of his day. James claimed that the standard view was the ‘effect-theory’ of attention, which considered attention to be a causally inert effect of other physiological and psychological processes. In contrast, James held a ‘cause-theory’ of attention, which held that attention can be causally efficacious in cases where the organism is in an effortful state of ideational preparation. In such cases, the organism experiences a feeling of effort due to competing possible objects of ideational attention. This has the consequence of making volition a kind of attention, as well as entailing that the feeling of effort implies and is implied by awareness of our behaviour.

The feeling of effort was given a full treatment in chapter four. James’s conception of the feeling of effort had significant consequences for his account of action. First, it assists us in picking out which behaviours of the organism are part of an action. Based on the psychophysics of attention, the appropriate behaviours are those that are present in the idea of the end that the organism is trying to achieve. Second, it made James’s account of action highly context-sensitive, as context-sensitivity was the appropriate way to distinguish between dream content and waking content. Third, it put the appropriate level of discourse regarding action at the level of conscious behaviour rather than at the neurological or atomic level.

James’s account of action was spelled out in detail in chapter five. In accord with James’s functional approach to psychology, this necessitated an account of the phenomena and the conditions of action. Once these were stated, it was possible to articulate a general method of ascribing action according to James’s account. This method had three aspects: a subjective aspect, an objective-personal aspect, and an objective-impersonal aspect. These three aspects were important in that it respected the context-sensitivity demanded by the previous chapter. Finally, I considered the upshot that James’s account of action has for contemporary action
theory. Surprisingly, James’s account of action is not a viable alternative or improvement on the standard view; rather, it is a version of the standard view that is just as susceptible to the standard view’s main criticism—deviant causal chains—as any other version. However, the mere fact that James’s account of action is a version of the standard view is extremely important. First, it makes James’s work relevant and approachable to contemporary action theorists. Second, it gives contemporary action theorists access to the psychological tradition in which James worked. Finally, it enables a dialogue between contemporary analytic metaphysics and pragmatism by making the latter a subset of the former.

6.2 Potential Avenues of Future Research

Several avenues of further research emerge from this project. Of these, two bear special mention. First, and most pressing, is the need to modernize James’s psychology to further explore the relation between James’s metaphysics and contemporary analytic metaphysics. Second, less pressing but no less important, is the need to provide a comprehensive account of James’s psychology which clearly positions the Principles within the psychological tradition. I shall look at these projects in turn.

6.2.1 Modernizing James’s psychology

A significant hurdle to reconciling James’s account of action with contemporary action theory is the outdated psychology with which James is working. If the connection between the two is to be made stronger, one must find some way to recast James’s psychology into modern terms. I believe that there are at least two possible ways to do this: first, through the work of Daniel Kahneman; second, through work done in ego depletion. The same tack is taken in both cases: to accept James’s general framework about the feeling of effort being the “star-performer” of action, but to modify James’s account of psychophysics in order to better reflect the state of modern psychology. To be clear, the philosophical project is not to argue for the
veracity of Kahneman’s project or to debate the finer points of ego depletion, but rather to find points of contact between James’s project and modern work in order to make James more palatable to modern audiences. In that spirit, presented here is a brief analysis of some ways in which Kahneman’s psychology and the area of ego depletion are amenable to James’s account of action, leaving a full treatment as a possible avenue of future research.

a. **Kahneman’s account of effort**

The aspect of Kahneman’s thought that is most amenable to James’s account of action is his theory of mental effort, first developed in his 1973 book *Attention and Effort*. Kahneman argues that there was a finite amount of capacity that an organism had to mobilize towards the completion of tasks.\(^{299}\) He claims that there was very little direct control over the deployment of this capacity; rather, the amount of mental capacity that was allotted toward a task was based almost exclusively on the initial assessment of how much mental capacity that task would require.\(^{300}\) The initial assessment was not a conscious one, but was what was considered intrinsic to the task at hand, as evidenced by the drastic differences in error rates when the task was made to be more difficult than it first appeared as opposed to the task appearing difficult from the outset.\(^{301}\) However, the amount of capacity allotted to a task is not constant throughout the performance of that task, but rather fluctuates second-by-second to correspond to momentary changes in the difficulty of that task.\(^{302}\) Kahneman provides the helpful analogy of the effect of introducing devices into an electrical grid:


\(^{300}\) Kahneman, AE, 15.

\(^{301}\) Kahneman, AE, 14.

\(^{302}\) Kahneman, AE, ibid.
When you push a slice of bread into the toaster, this increases the load on the general electric supply. Without a countervailing change, the new load would cause the voltage supplied to all users to drop. However, the generator that supplies the current is equipped with a governor system which immediately causes more fuel to be burned to restore the constant voltage. In this manner, the total power that the generator supplies varies continuously as a function of the load which is imposed by the momentary choices of the consumers of electricity.  

Kahneman notes that it is not the case that the generator is aware of the changes to the demand of electricity, but merely responds to the overall demand by doing what it is programmed to do. In the same way, each task that we attempt to complete adds a certain amount of load onto our system. Up to a certain point, we can execute the tasks without having our performance deteriorate, but if the momentary demand spikes unexpectedly or exceeds our overall capacity, our performance on every task will either deteriorate or if not cause us to outright fail.

This account of mental effort has several features which make it amenable to James’s account of volition and attention. The first of these features is that it recognizes that tasks have durations, during which the organism is constantly monitoring, evaluating, and reassessing the mental effort required to complete it. A second feature is that Kahneman recognizes that there is a base level of effort that is deployed at all times, resulting in a persistent (if minimal) experience of effort deployed in order to monitor one’s surroundings to assess things like safety, risk, the accommodation of short-term needs or simply the study of temporarily interesting objects in one’s vicinity. This echoes James’s claim much to the same effect that where there is no

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303 Kahneman, AE, ibid.
304 Kahneman, AE, 15.
305 Kahneman, AE, 16.
306 Kahneman, AE, ibid.
attention, there is no awareness—if we are not engaged in a task or passively monitoring our surroundings, then the presence of mental activity at all is questionable.\(^{307}\)

Kahneman spent over forty years developing his theory of mental effort, culminating with the publication of \textit{Thinking, Fast and Slow} in 2011. The account given in that work provides a great deal of experimental results which both refine and expand his earlier view, and also brings his thinking closer to that of James’s. The most profound development that Kahneman reports is that through a series of experiments he was able to quantitatively measure the relative amount of effort that a person experiences while engaged in a task. In a series of experiments, Kahneman asked participants to calculate increasingly complex mathematical equations unaided and as quickly as they could. Kahneman observed that the participants’ pupils dilated by a quantifiable and predictable amount in proportion to the difficulty that the participant experienced while performing that calculation.\(^{308}\) There was also a measurable and predictable increase in the participant’s heart rate and breathing rate, again in proportion to the difficulty of the calculation at hand.\(^{309}\) Eventually, Kahneman and his colleagues were able to determine when participants were having the subjective experience of great effort, and when this feeling subsided.\(^{310}\) The work done by Kahneman in this regard is tremendously helpful for James’s case, as it shows that the feeling of effort to be at once something irreducibly subjective for the person experiencing it and an objectively quantifiable physical phenomenon for someone studying it, and respects the distinction between the two. Kahneman does not suggest that the

\(^{307}\) See section 3.3.2, above.

\(^{308}\) Kahneman, \textit{Thinking, Fast and Slow}, (Toronto: Doubleday Canada, 2011), 33-4. Hereafter abbreviated as TFS.

\(^{309}\) Kahneman, TFS, 33-34.

\(^{310}\) Kahneman, TFS, 33.
feeling of effort is reducible to the physical effects that he lists, but that through measuring the latter one could approximate the degree to which the participant is experiencing the former.

Kahneman’s explanatory model vindicates James’s methodological dualism, as he holds a conceptual difference between two systems in our cognitive abilities. The first system is characterized by being quick and reflexive (“fast” thinking), while the second is sluggish and reflective (“slow” thinking). Being quick and reflexive, responses which originate in system one require very little effort on the part of the individual. Responses which originate in system two, however, place greater demands on our cognitive capacities, and thus require varying degrees of effort in proportion to the demands of the task. Kahneman further notes that there is a limit to our cognitive capacities; that is, there is only so much cognitive energy that one can expend at any given time. If we meet or exceed that limit, we must draw energy from other systems in order to compensate. Lest we think that this is a mere metaphor, Kahneman provides scientific support for this portrayal of system two as a tax on our cognitive energy. Citing a colleague’s work, Kahneman explains that effortful mental activities result in the brain consuming glucose at a rate similar to a marathon runner’s muscles during a marathon.

Another feature which would endear Kahneman’s work to James is that like James, Kahneman bases his work on selective interest and engagement with the environment. Kahneman notes that system two is inherently lazy and seeks to conserve energy whenever possible. Using a series of now-famous math problems, Kahneman demonstrated that people

312 Kahneman, TFS, 21.
313 Kahneman, TFS, ibid.
314 Kahneman, TFS, 34.
315 Kahneman, TFS, ibid.
316 Kahneman, TFS, 43.
are more likely to accept an intuitively plausible answer than to put in the work to make sure that their answer is correct. Kahneman notes that in all cases where respondents gave the incorrect intuitive answer, there was a distinct lack of engagement with the question.\(^\text{317}\) The correct answer could be determined with a minimal output of energy, but in most cases, even students at some of the top universities in the United States would opt not to invest even that minimal amount of energy.\(^\text{318}\) Failure at these tasks is not linked with a lack of intelligence, but a lack of motivation. As Kahneman writes, “Failing these minitests appears to be […] a matter of insufficient motivation, not trying hard enough.”\(^\text{319}\) Someone’s interest in pursuing a task is thus integral to the amount of effort that one is willing to expend in order to pursue it. The more that one is invested in a successful outcome, the more willing one is to expend energy in order to increase the likelihood of that outcome.\(^\text{320}\) This echoes James’s words in *Talks to Teachers*, where James implores teachers to make students engaged with the material so that their attention can be maintained on the subject matter so that performance can naturally follow. According to Kahneman’s work, that is exactly the case: engagement and interest precedes attention and effort.

Kahneman’s distinction between the two systems of thought provides a framework in which we might understand how habituation functions within an account of action built on the feeling of effort. System two responses are still characterized by the sensation of effort that one experiences when one is engaging in a task. However, rather than being a product of a conflict that arises between competing ideas about how one ought to respond to a situation, the sensation of effort instead arises from the greater amount of energy that must be expended in

\(^{317}\) Kahneman, TFS, 45.  
\(^{318}\) Kahneman, TFS, ibid.  
\(^{319}\) Kahneman, TFS, 46.  
\(^{320}\) Kahneman, TFS, 45.
order to successfully resolve a situation where one either does not have a system one response or one is invested enough in the situation that one finds one’s system one response insufficient.\textsuperscript{321} The process of habituation works through system two’s inherent laziness and compulsion to conserve energy. As a task is repeated, less and less energy is required to successfully complete it.\textsuperscript{322} Once the amount of energy reaches its minimal state, the task has been offloaded onto system one and has become a reflexive response that isn’t so much concerned with being familiar or comfortable, but rather just being easy.

In effect, adopting Kahneman’s model flips the picture that James presents with respect to the explosive will and the impeding forces. System two is not explosive, but lethargic. It will only act when it needs to act, and will only act to the extent that is minimally required. Compare this to James’s account, wherein it will act just as long as it is unimpeded and to the maximum extent possible. Despite this flipping, the core picture that James presents is maintained, including the extension to consciousness. According to Kahneman, control and volitional behavior is rooted in system two.\textsuperscript{323} System two is also what either endorses or rejects the intuitive responses that are provided by system one. In all cases where system two is at work, we feel effort as extra energy is being expended, and in all cases of extra energy being expended we have system two at work. Our conscious life is wholly contained in the use of this energy. Indeed, our mental lives are wholly comprised of the instances where system one is insufficient or leads to disastrous results.\textsuperscript{324} This model can also account for the modification noted in the first objection given above. As no two situations will be exactly alike in all respects, there is an underdetermination in all of our system one responses. As system two acts as the

\textsuperscript{321} Kahneman, TFS, 46
\textsuperscript{322} Kahneman, TFS, 22-23.
\textsuperscript{323} Kahneman, TFS, 22, 47-48.
\textsuperscript{324} Kahneman, TFS, 21-23, 28-29.
controller of system one, always providing a “yea” or “nay” in the commission of any system one response. There will always be a minimum amount of mental energy used, and thus there will always be a minimum level of consciousness of one’s actions, even ones that are “rote habit”.

While it is beyond the scope of the present project to fully consider the effects of amending James’s work with Kahneman’s, it is clear that such a course would be fruitful. The accounts given above provide a contemporary frame of reference for James’s work, and it is quite possible to understand James within those terms. At a bare minimum, it shows that James’s account of effort and its place within our mental lives is much more than simply plausible, but ought to be taken as compelling starting point for an account of action which respects our subjective experiences of the phenomenon but still allows for scientific understanding to clarify those experiences.

b. Ego depletion

Another avenue of research that supports the idea that experiences of effort are integral to our understanding of action is that of ego depletion. As developed by Roy Baumeister et al., ego depletion is the idea that all acts of self-regulation and self-control draw from the same limited pool of resources, such that if one must exert some of this energy to resist temptation in a first instance, one will have less resources available to resist temptation in subsequent instances.325 The experiments designed in order to test this hypothesis yielded some interesting results. In one experiment, hungry participants were placed in a room wherein the experimenter had baked and put on display a fresh batch of chocolate chip cookies along with a bowl of red and white radishes. After being left alone for a short period of time with the instructions to only eat a certain amount of either the cookies or the radishes, participants were asked to complete

a problem-solving task that was designed to be impossible to solve. Baumeister found that those who had been told to eat only the radishes had considerably less patience and persistence on the problem solving task, willing to spend less than half of the time attempting the task than those who were told to eat the cookies or who were in the no-food control group, and made significantly fewer attempts.\textsuperscript{326} Exit surveys also indicated that those in the radish group were in a poorer mood and felt more fatigued after the problem-solving task, and also were more likely to quit as soon as they felt the urge to do so than those in the other two groups.\textsuperscript{327}

A follow-up experiment revealed a great deal about the relationship between the experience of effort and our perception of the amount of control we have over a particular choice. In this experiment, undergraduate participants were to make a speech on a subject near and dear to their hearts: tuition increases. In one group, students were given a choice between which side of the debate to endorse; in another, students were assigned a speech arguing in favour of raising tuition. After delivering the speech, those students, along with a control group who did not have to choose or deliver a speech, were asked to complete the same impossible problem-solving task as before. The results were illuminating: those who had to weigh the merits of each side spent significantly less time attempting the task, and with significantly fewer attempts.\textsuperscript{328} Even more astounding was that there was very little variation in performance.

\textsuperscript{326} Baumeister, \textit{Ego Depletion} (1998), 1255. Those who were told to eat the radishes spent an average of 8.35 minutes on the problem-solving task and averaged 19.40 attempts. The chocolate group spent an average of 18.90 minutes and averaged 34.29 attempts. The control group spent an average of 20.86 minutes and averaged 32.81 attempts.

\textsuperscript{327} Baumeister, \textit{Ego Depletion} (1998), 1255.

\textsuperscript{328} Baumeister, \textit{Ego Depletion} (1998), 1257. Those with a choice averaged 14.30 minutes on 26.10 attempts if they chose contrary to their previously determined attitudes, and averaged 13.80
between those who chose a speech that was contrary to their previously determined attitudes and those who chose a speech that was in line with the same, as well as there being very little difference between those who were assigned a speech contrary to their previously determined attitudes and the control group who did not have to make a choice.\textsuperscript{329} Baumeister concluded that it was the act of choice that affected the willingness of participants to persist at the impossible task. He summarized his findings as follows:

The implication is that it is the exercise of choice, regardless of the behavior, that depletes the self. Whatever motivational, affective, or volitional resource is needed to force oneself to keep trying in the face of discouraging failure is apparently the same resource that is used to make responsible decisions about one’s own behavior, and apparently this resource is fairly limited.\textsuperscript{330}

The experience of effort is thus indicative of the amount of one’s mental capacities that are being used in order to evaluate which option to choose, which then affects one’s ability to maintain attention or self-control.

Both of these experiments work in James’s favour. The first experiment tacitly suggests a model of volition that is strikingly similar to that of James. In the first experiment, participants were given a particular course of action to which they had to adhere despite the temptation to act in a different way. In James’s words, there were competing ideas about how to act, and one was attempting to hold fast to one of these ideas. The more tempted someone was, the more effort that they experienced, and the worse they generally performed on the subsequent tests.\textsuperscript{331}

At least according to these results, James appears to have been correct about the status of

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minutes on 24.70 attempts if they chose in line with them. Those who were assigned a speech contrary to their previously determined attitudes averaged 23.11 minutes on 42.44 attempts. The control group averaged 25.30 minutes on 35.50 attempts.
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\textsuperscript{329} Baumeister, \textit{Ego Depletion} (1998), 1257.

\textsuperscript{330} Baumeister, \textit{Ego Depletion} (1998), 1258.

\textsuperscript{331} Baumeister, \textit{Ego Depletion} (1998), 1255-6.
volition as a form of attention. The second experiment has even more significant consequences for James’s theory of action. Baumeister noted that amongst the people who the actions considered the most free were those which required the greater amount of resources to accomplish. Subsequent experiments showed an increased tendency towards passivity in proportion to the depletion of this resource, suggesting that “conscious, free choice must remain at best restricted to a very small proportion of human behavior” and that “most behavior would have to be automatic instead of controlled.” The feeling of effort provides a clue to indicate to us that our mental resources are being depleted while engaging in a certain activity.

Subsequent developments in this area have validated many of Baumeister’s claims and have done so in a way that supports the use of the feeling of effort as the foundation of a Jamesean theory of action. Mark Muraven conducted a series of experiments which suggested that the resources involved in self-regulation and self-control function in a way that is analogous to an athlete’s use of physical energy. Muraven suggests that the temporary drop in the performance of acts of self-control that is evident after a previously unrelated act of self-control can be alleviated by having a period of rest between the tasks during which time no act of self-control is necessary. By regularly depleting one’s resources and then resting, one’s pool of available resources will grow, much in the same way that muscles develop. Most surprisingly,

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335 Muraven, 254.

336 Muraven, 254. Compare this to James’s claim that one should exert a gratuitous amount of effort every day.
Muraven found that it was not the success or failure of any particular act of self-control that contributed to this development, but rather just the exertion of the resources in the first place.\textsuperscript{337}

One of the most significant developments in this line of research for the present purposes is the identification of factors which can reduce the total amount of resources available which are not themselves acts of self-control. One of the most important of these factors are the level of stress that a person is under.\textsuperscript{338} Such stressors such as occupational burnout or repeated frustration of progress are a long-lasting form of depletion wherein one’s resources are not recovered through rest but instead are taxed continually, leading to a profound inability to effectively exert any self-control, which might lead to poor impulse control or the inability to regulate one’s negative emotions or behaviour.\textsuperscript{339} As mentioned above, depletion of resources leads to an increased tendency towards passivity, and those who are in a persistent state of depletion may see a severe decrease in performance in any areas of their lives which require self-control or self-regulation, and may lapse into mere routine and standardized behaviour with no attempt at much else.\textsuperscript{340} Other factors which may affect the amount of resources available include one’s general health, one’s diet, or the time of day.\textsuperscript{341} Further, while ego depletion is described in terms of a pool of data, most advocates are quick to point out that this such a term

\begin{footnotesize}
\begin{enumerate}
\item Muraven, 254.
\item Baumeister, \textit{Ego Depletion} (2001), 306.
\item Baumeister, \textit{Ego Depletion} (2001), 313.
\item Muraven, 251-253.
\end{enumerate}
\end{footnotesize}
is not meant to be taken literally, but metaphorically as a stand-in for the amount of our total energy that we can allocate towards self-control before performance begins to deteriorate.

Most interestingly, the entire concept of ego depletion is exactly what one would expect if one grants the account of the feeling of effort that I have described above. Recall that the feeling of effort was a transitional state of consciousness indicating the points at which one’s habituated behaviour is failing to result in ideo-motor action. Both of Baumeister’s experiments described above are examples of that scenario. In both cases, one is presented with multiple options that are roughly equally attractive given the setup of the experiment. If the feeling of effort is the representation in consciousness of the use of mental resources to hold fast to one conception of what to do over competing conceptions, then one would expect that one would feel effort in those cases and to have less mental resources available for subsequent situations. If habituation works in a way similar to how James has described it, causing energies to flow freely without impediment, then one would expect to experience ego depletion through deliberate acts of breaking habits, which is exactly what Baumeister noticed in his experiments.342

c. Summary

The accounts of Kahneman and of ego depletion given above do not do justice to these two rich sources of psychological insight, but they do show the viability of a project reconciling James’s thought with modern psychology, or at least a way in which James’s psychology may be recast in order to strengthen James’s account of action. Kahneman’s work suggests that mental effort is the central feature of conscious activity, and that the phenomenological experience thereof is an indication that mental resources are being consumed. The work in ego depletion further underscores the interrelatedness of the mental and the physical, while still

maintaining an explanatory dualism of the kind that James requires for his project to be successful. Once put into modern terms, the connection between James’s account of action and the standard view will be even stronger.

6.2.2 The psychology of pragmatism

A second avenue of research emerging from this project is the need to provide a clear account of the indebtedness of the classical pragmatists to associationist psychology. Classical pragmatism is often interpreted within the terms of the philosophical tradition from which it emerged. This is understandable, as the most well-known work of all of the classical pragmatists are works of philosophy or are understood to be steeped in philosophical content. Accordingly we get interpretations of pragmatism which tend to downplay the importance of, if not overlook entirely, the psychological work done by most of the classical pragmatists and all of the traditional trinity of Peirce, James, and Dewey. This project shows that, at least in the case of James, his philosophy cannot be fully understood without reference to his psychology, and that his psychology cannot be fully understood without reference to the psychologists to whom he was responding. For example, much has been written about the role of the will in “The Will to Believe”, but, as seen in chapter five, not all scholars examine what James means by the will as found in *Principles*. Even if some reference is made, very rarely do scholars situate the psychological work found in *Principles* in the psychological tradition with a careful analysis of James’s psychological forebears. This is unfortunate, as it deliberately introduces a potential source of error into one’s interpretation of James.

An example of an error that arises from an insufficient understanding of James’s psychology and its place in the psychological conversation can be seen in the work of Wilshire. Not mentioned in chapter one is the peculiar treatment of the flow of the argument of *Principles* that Wilshire presents. Wilshire walks us through *Principles* without regard to the chronological development of the content, treating the *Principles* as an argument that is presented in the order
in which it is found in the book. Presented in this way, Wilshire is able to claim that James presents an issue and then continually runs into problems while attempting to cash it out, but this simply is not the case. Parts of many chapters were written and published well before the *Principles*, and what is included in the *Principles* is usually a truncated and modified version of the earlier papers. What is important about this is that the earlier papers were usually written as a response to a particular psychologist or group of psychologists. Without regard to the intended audience or the reasons for which James wrote a particular passage, the *Principles* takes a vastly different tone.

This potential avenue of future research thus has three components. Using James as an example, these components are as follows. The first component is an attempt to understand the intellectual provenance of the *Principles* in the field of psychology. This task would be completed by providing a clear analysis of the major figures leading up to the arrival of James on the scene and would include references to Hartley, Thomas Brown, the Mills, Bain, Spencer, Wundt, and Titchener, among others. The second task would be to understand the *Principles* as a work of psychology. This task would be completed by paying close attention to which aspects of the tradition James accepted, which he rejected, which he modified, and which are unique to him. The third task would be to articulate the relationship between his psychology and his more explicitly philosophical work. The enormity of the resulting project would necessitate narrowing the focus to certain aspects of James’s thought, as well as leaving the same treatment of Peirce and Dewey to others better than myself suited to such an analysis. One upshot I see of this project is the reinforcement of the idea that there is no clear distinction between James’s psychology and his philosophy, but for the opposite reason than is traditionally advanced; it is because his philosophy is highly psychological, rather than his psychology being highly philosophical.

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343 Wilshire, 11.
One interesting point of convergence between Peirce, James, and Dewey is their shared belief in the essentially active nature of the organism. As noted throughout this project, this belief put James at odds with the prevailing views of his day with respect to many standard topics of psychology. In the case of James, the upshot of this belief was the ability to engage with the natural sciences and incorporate advances in those areas into his psychology, but avoiding the tendencies of his contemporaries and predecessors to reduce psychology to those areas. More work will have to be done to articulate the ways in which this non-reductionist naturalism led to later moves within the pragmatist tradition. Further, more work must be done to show what this non-reductionist, naturalistic psychology, and its resultant view of action, means for the natural sciences, in that it makes the essentially active organism a vital part of any comprehensive account of nature.

In conclusion, while the work done in this project is important and consequential in its own right, it also reveals other projects that are equally as important and consequential to our understanding of James and the intellectual climate in which he wrote.


Houser, Nathan and Kloesel, Christian (eds.). *The Essential Peirce: Selected Philosophical Writings, Volume 1 (1867-1893).*


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Muraven, Mark and Baumeister, Roy F. “Self-Regulation and Depletion of Limited Resources: Does Self-Control Resemble a Muscle?,” Psychological Bulletin 126:2 (2000); 247-259.


