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# Stoic Moral Psychology: The Implications Of Ventromedial Prefrontal Cortex Damage

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# STOIC MORAL PSYCHOLOGY: THE IMPLICATIONS OF VENTROMEDIAL PREFRONTAL CORTEX DAMAGE

by

NICHOLAS ROBERSON

Under the Direction of Tim O'Keefe and Eddy Nahmias

## ABSTRACT

In his book, *A New Stoicism*, Lawrence A. Becker sides with Posidonius, and against Chrysippus and others, on the issue of whether the sage will experience passions. The Posidonian position is that the sage *will* experience conflicting passions but will, nevertheless, overcome those passions through his or her perfected agency. In opposition, Chrysippus and others assert that the sage will have extirpated all his or her passions as a necessary precondition for achieving sagehood. I will argue that a body of neuroscientific evidence chiefly concerned with the effects of lesions to the ventromedial prefrontal cortex (vmPFC) supports Becker's assertion that Chrysippus' call for the extirpation of the passions is neither plausible nor desirable. Recent empirical discoveries support Posidonius' view of the role of the passions in the virtuous life.

INDEX WORDS: Stoicism, Neuroscience

STOIC MORAL PSYCHOLOGY: THE IMPLICATIONS OF VENTROMEDIAL PREFRONTAL CORTEX DAMAGE

by

NICHOLAS ROBERSON

A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of

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2013

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**DEDICATION**

For my father and mother

## ACKNOWLEDGEMENTS

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## TABLE OF CONTENTS

<b>ACKNOWLEDGEMENTS .....</b>	<b>v</b>
<b>1 INTRODUCTION .....</b>	<b>1</b>
<b>2 TWO VARIETIES OF STOICISM.....</b>	<b>4</b>
<b>2.1 The Moral Psychology of Chrysippus .....</b>	<b>7</b>
<b>2.2 The Moral Psychology of Posidonius .....</b>	<b>17</b>
<b>3 EMPIRICAL EVIDENCE IN SUPPORT OF POSIDONIUS.....</b>	<b>22</b>
<b>3.1 Summary of the Effects of Ventromedial Prefrontal Cortex Damage .....</b>	<b>23</b>
<b>3.2 Implications for Stoic Moral Psychology.....</b>	<b>28</b>
<b>4 CONCLUSIONS .....</b>	<b>34</b>
<b>REFERENCES .....</b>	<b>39</b>



## 1 INTRODUCTION

In recent years there has been a welcome resurgence of philosophical interest in virtue ethical theories. Scholars working in this resurgence have typically drawn much from Aristotle's ethics as the preeminent version of a historically respected aretaic moral system. However, Stoicism and Stoic ethics also have much to offer contemporary discussions in virtue ethics and deserve to be taken as seriously as Aristotelian ethics is. Unfortunately, Stoic ethics have been widely misunderstood and caricatured. Even when being subjected to serious scholarly scrutiny, it has often been said of Stoic ethics that it only adds to what is otherwise an Aristotelian foundation—that “what was true in stoic ethics was not new, and that what was new was not true.”<sup>1</sup> Nevertheless, Stoic ethics and Aristotelian ethics *are* distinct, and each offers valuable insights worthy of in-depth study. Moreover, it can be argued that some of the features distinguishing Stoic ethics from its Aristotelian counterpart offer distinct *advantages* over Aristotelian ethics. Though I will not be arguing here for the overall superiority of Stoic ethics over Aristotelian ethics, this thesis is based on the premise that Stoic ethics deserves to be taken as seriously as Aristotelian ethics is being taken and for some of the same reasons.

But Stoicism, like all ancient ethical systems, was based on an outdated moral psychology that modern scientific investigation has demonstrated to be explanatorily insufficient in many respects. One of the features of ancient Stoicism that separated it from Aristotelianism was its monistic model of human psychology; where Plato and Aristotle<sup>2</sup> attributed a tripartite structure to human agency, ancient Stoics maintained that the human psyche possessed only a single faculty: reason. Recent studies of individuals suffering from lesions to a particular region of their brains – the ventromedial prefrontal cortex (vmPFC) – have provided significant evidence challenging the monistic moral psychology of Chrysippus,

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<sup>1</sup> Becker (1998), p 127

<sup>2</sup> See Burnyeat (2006)

the third head the ancient Stoic school and its most accomplished theorist. However, a thoroughly Stoic ethical theory can be sustained on an alternative psychological model that is not contradicted by the findings of modern scientific psychology and neurology. This version of Stoic ethics necessarily jettisons Chrysippus' monistic psychology but can still be tied to the work of ancient Stoics, most notably Posidonius.

I will argue that this account of Stoicism – put forward by Lawrence C. Becker in his book, *A New Stoicism* – accords with the evidence from vmPFC damage *and* maintains an important link to ancient Stoic writings. As Becker notes repeatedly in his book, Chrysippus' moral psychology was not a given in the internal debates among Stoics, and one prominent ancient Stoic – Posidonius – argues against it in favor of an alternative model. It might seem that a tripartite (or, more properly, non-monistic) psychological model like the one apparently espoused by Posidonius (whom Becker draws upon) renders Stoic ethics indistinguishable from Aristotelian ethics. However, this assumption would be a mistake. Although the psychological model Posidonius seems to lean towards is identified with the Platonic model by Galen (who is our main source for Posidonius' position), the modifications made to the psychological model do not invalidate the theses that distinguish Becker's project as uniquely Stoic. Speaking in the plural first person for Stoics generally, Becker writes:

To many of our critics, it seems that what is defensible in stoic ethics is not unique to it, but merely a reprise of various ideas drawn from other ancient sources. What is uniquely stoic, they say, is only a collection of very peculiar and ultimately indefensible doctrines. We continue to hold most of those peculiar doctrines. We hold, for example, that the final end of all rational activity is virtue, not happiness; that virtue does not admit of degrees, and among people who fall short of it, none is any more virtuous than another; that sages are happy just because they are virtuous, and can be happy even on the rack; that they must be able to say of everything other than their virtue (friends, loves, emotions, reputation, wealth, pleasant mental states, suffering, disease, death, and so on) that it is nothing to them.<sup>3</sup>

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<sup>3</sup> Becker (1998), p 8

All of these are claims that differentiate Stoic from Aristotelian ethics, and all of them can be supported in the absence of an outmoded monistic moral psychology. The aim of this thesis will be to argue for this point: that a revamped Stoic ethics remains viable today in spite of the failure of Chrysippus' moral psychology in the face of neuroscience evidence from vmPFC damage. The importance of empirical plausibility for Stoicism arises out of its naturalism, which entails that Stoic ethics is a project that is possible for creatures like us. Becker's resurrected Stoic ethics, which maintains its connection to ancient Stoic theorists like Posidonius as well as its distinctive Stoic theses, is as profitable and worthy of considered study as Aristotelian ethics.

In chapter two I will present a brief background on the moral psychology of the ancient Stoics as well as the evidence for the relevant doctrinal differences between the Stoic orthodox psychological monism (vis-à-vis Chrysippus) and Posidonius' heterodox (but nonetheless Stoic) position. Next, in chapter three, I will summarize the relevant studies of vmPFC damage and show that they present evidence for a model of human cognition and emotion that counts strongly against the Chrysippean monistic picture. This evidence, however, will turn out to be entirely consistent with the model that Becker advances, which can be tied to Posidonius' alternative Stoic moral psychology. Finally, in chapter four, I will show how a distinctively Stoic ethical program can comport with the moral psychology of Becker and Posidonius.

## 2 TWO VARIETIES OF STOICISM

Lawrence C. Becker, in *A New Stoicism*, sketches the outline of a resurrected stoic ethics. In doing so, he breaks with Chrysippean orthodoxy by asserting that human agency is incapable of being “purified” of conflicting affective impulses. In the interest of clarity, it will be worthwhile to make a distinction between two positions that are prone to conflation here. First, *pace* Chrysippus, Becker and Posidonius hold an ‘anti-monistic’ position. In other words, they offer a view wherein human mental phenomena are not all attributable to a single psychological faculty. Second, also *pace* Chrysippus, Becker (and plausibly Posidonius as well) adhere to what might be called an ‘intractability’ thesis. The substance of the intractability thesis is that psychological conflict between one’s affective and rational capacities is endemic to human experience; even the sage will not be utterly free of what might be described as affective turmoil. Becker attributes this view to Posidonius and endorses his view that even the perfected agency of the wise person (i.e., the sage) will be subject to some emotional turbulence – albeit highly attenuated and incapable of marring the sage’s virtue or happiness.

One might wonder whether the sage’s agency should count as perfected if it is still subject to emotional turbulence. However, this concern seems to emerge from a presumption that absolute tranquility is necessarily required to be a sage. It is not immediately clear what the basis of this presumption could be aside from sheer appeal to tradition. It is certainly true that ancient ethical theories have typically stressed the importance of tranquility, but this has been an entailment of their psychological models, which are, of course, severely outdated in the sense that they are based on falsified scientific models of physiology. I will return to the issue in chapter four.

Importantly, Becker strongly maintains that his revamped Stoicism is indeed *still Stoic*; the features of Chrysippus’ theory of the emotions that made his account a Stoic one are also found within the Posidonian line Becker takes up, although some commentators have argued that this is dubious. Thus, it is integral to my purposes to establish that the adoption of Posidonius’ account of the emotions should

not preclude Becker's project from carrying the torch of the Stoa. First, I will examine the Chrysippean position in detail and clarify its theoretical commitments. Posidonius constructed his account of the emotions in reaction to the perceived explanatory insufficiencies of Chrysippus' own. Therefore, understanding the nuances of Chrysippus' theory will enable us to grasp more easily the ways it differs (and the ways it does not) from Posidonius' later innovations. After we have Chrysippus' theory in hand, I will present Posidonius' account of the emotions in sufficient detail to settle its Stoic credentials and frame the challenge Posidonius aims at Chrysippus. Finally, I will consider the objections to the effect that mere theoretical criticism of Chrysippus' account is not sufficient to warrant its dismissal or replacement as "orthodoxy" in Becker's revival of Stoic ethics; doing so will motivate the subsequent move in later sections to consider the empirical evidence from neuroscience, which I will argue thoroughly vindicates Becker's rejection of the Chrysippean account of the emotions in favor of Posidonius' view.

However, before delving into Chrysippus' theory of the emotions, it will be helpful to ground our discussion in Becker's text. He writes:

Perfected agency is not monochromatic. We do not imagine, as perhaps Chrysippus did, that the sage's very motivations are harmonized, with the result that desire and passion are unified with reason and will, thus producing tranquility by removing conflicts at their roots. Rather we follow Posidonius in supposing that conflict remains constitutive<sup>4</sup> of healthy, mature agency, and that the function of agency proper is to cope with it, not necessarily to root it out. The tranquility produced by ideal agency, then, is prospectively the serenity generated by confidence in one's ability to cope, and retrospectively the lack of regret generated by knowing that one has shot perfectly, even if the arrow has missed the target.<sup>5</sup>

Two elements of the above passage are worth noting. First, Becker is concerned to account for the origin of the sage's tranquility in spite of the endemic character of conflict in her agency. That the sage

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<sup>4</sup> To claim that conflict is "constitutive of healthy, mature agency" would seem to place one immediately outside the bounds of Stoic moral theory. However, Becker's claim here seems to be that, given the empirical evidence of our best scientific psychological investigations, there is no reason to suppose that any kind of cognitive training could prevent or remove *all* internal (often affectively valenced) friction between conflicting mental states.

<sup>5</sup> Becker (1998), pp 113-114

will achieve tranquility is a traditional feature of Stoic doctrine,<sup>6</sup> and Stoic orthodoxy holds that it arises in the sage because of her freedom from the turmoil of the passions, which she has eliminated in her soul. Embracing Posidonius' account of the emotions, however, requires that the sage's tranquility can no longer be conceived of in terms of the complete absence of psychological conflict. Therefore, the sage's tranquility in Becker's new Stoicism ceases to be identified with *apatheia*.<sup>7</sup> That this is consistent with a theory's being a Stoic one will become evident in the exposition to follow.

The second thing to notice is how Becker recasts tranquility as the sort of thing the sage has *now* with respect to her past and future. The absence of regret about the past and the presence of confidence about the future are the currency of Stoic tranquility as Becker conceives it. And, of course, the absence of regret (or satisfaction with past performance) and confidence are mental (possibly affective) states the sage experiences in the present, even though they are oriented away from the current moment. This model of tranquility is not, at least *prima facie*, less appealing than *apatheia* as a feature of an ethical system's ideal agent; in fact, many may find it more intuitively desirable to strive toward Becker's kind of Stoic tranquility than Chrysippus', which involves a lack of emotion that many find unappealing as well as implausible. The sage on the Chrysippean model appears more god-like than human, and one strains to imagine even the possibility of ever achieving a perfectly harmonious emotional life. On Becker's model, while the sage is still an ideal agent – and becoming one remains farfetched for most of us – her affective experience, inasmuch as it exhibits a modicum of turbulence, seems plausibly achievable by at least some actual persons. To the extent that Stoicism is committed to being practically useful in helping us live our lives well, this counts in favor of Becker's project on Stoicism's own terms.

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<sup>6</sup> The Stoics, Epicureans, and Pyrrhonian Skeptics were all ancient philosophical schools whose practices purported to provide tranquility to their practitioners.

<sup>7</sup> "*Apatheia*" means literally "lacking the *patheiai*" and is taken to be the state of perfect psychic tranquility attained by the sage through her freedom from false judgments. In other words, because the *patheiai* are false judgments for the Stoics, the sage – who never makes false judgments – is not subject to the *patheiai*. She is thus in a state of *apatheia*, which, for the Old Stoa, entailed emotional tranquility (i.e. tranquil emotions, as opposed to a complete absence of emotions) as a corollary.

Becker jettisons *apatheia* because it is not indispensable to Stoicism. In fact, it seems eminently disposable. As we will see, it is an untenable commitment entailed by Chrysippus' account of the emotions, and its implausibility helps to impugn the theoretical foundation upon which his account rests. There is no reason why contemporary Stoics should remain beholden to an archaic picture of human psychology:

If it is true that Chrysippus believed Stoic moral training could effectively remove excessive emotions at their source, by removing the erroneous beliefs involved in them, and that this training could be so effective and so thorough that excessive emotion would never arise in the sage, then Chrysippus was wrong. Instead, Posidonius had it right when he argued that primal affect was a permanent feature of human life that sages, like the rest of us, would always have to cope with...This does not mean that subsequent cognitive responses are ineffective in controlling such affect. It only means that this sort of affective arousal and its immediate emotional or passional consequences cannot be eliminated by cognitive (Stoic) training, any more than Stoic training can eliminate perspiration.<sup>8</sup>

Abandoning Chrysippus is justified, then, to the extent that his theoretical models issue in conclusions – about what is possible for the kind of agency that human psychology allows – that are uncorroborated or contradicted by the empirical evidence. The disavowal is conditional on Chrysippus' holding a very particular position about the complete elimination of the passions. As we will see, Chrysippus' theoretical justification of *apatheia* depends upon his particular model of the emotions, and his model is organized around a central thesis that emotions and propositional attitudes are fundamentally identical. Finally, Becker reiterates the enduring relevance of Stoicism's cognitive training despite revisions to its psychological model. Next, we will consider Chrysippus' moral psychology.

## 2.1 The Moral Psychology of Chrysippus

The ancient Stoics constructed a model of human psychology, which served to ground their ethical claims. Chrysippus, as third head of the Stoa, was not himself responsible for inventing the distinctive

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<sup>8</sup> Becker (2004), p 255

ethical positions of the Stoics; for instance, that all but the sage are fools, that all fools are equally vicious, that virtue is the only good, that virtue is sufficient for happiness, that the sage is happy even on the rack – these claims can be traced back to Zeno of Citium, the founder and first head of the Stoic school.<sup>9</sup> However, Chrysippus is rightly credited with vigorously expanding and defending these foundational doctrines of Stoicism.

To the extent that Chrysippus' views on the emotions appear to diverge from Zeno's, one might wonder if attributing a unified, Stoic orthodox status to Chrysippus' work is justifiable. While there are plausible interpretative arguments to the effect that Chrysippus did alter the substance of Zeno's account of the emotions, there is little call to presume these divergences constituted a substantial schism within the Stoa.<sup>10</sup> Chrysippus, in his expansions of Zeno's work, was presumably motivated principally to distinguish Stoicism from its contemporaries and defend it from their criticisms.<sup>11</sup> The most significant difference between Zeno and Chrysippus on the subject of the emotions is whether to identify judgments with passions. Chrysippus does identify them with one another. Zeno seems to suggest that the judgment is merely necessary and sufficient for the passion without being fully identified with it. While it would seem that, where Posidonius and Chrysippus disagree, Zeno is more closely aligned with Chrysippus,<sup>12</sup> their apparent divergence over this issue of judgment-passion identity will allow the empirical findings presented in chapter three to drive a wedge between them.

What, then, are the elements of the emotions over which Chrysippus and Posidonius disagree? Chrysippus defends a monistic account of human psychology that rules out the existence of nonrational faculties such as are found in the theories of Plato and Aristotle.<sup>13</sup> For Chrysippus, there is only one thing in human minds that could be responsible for the emotions, and that thing is reason:

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<sup>9</sup> DL 10.118

<sup>10</sup> Rist (1964), p 24

<sup>11</sup> Gould (1970), p 196

<sup>12</sup> Lloyd (1978), pp 240-241; Rist (1964), p 35

<sup>13</sup> Not to mention most later philosophers and psychologists.



It is perhaps the most revolutionary aspect of Chrysippus' psychology that the rational faculty is regarded as the soul's only faculty; he did not think that there were any such faculties as the appetitive and spirited, which are assumed in Plato's psychology (III 259). Appetition or impulse is explained by him as the reason of man commanding him to do something (III 175).<sup>14</sup>

Thus, Chrysippus defines the passions as a kind of judgment (e.g., grief is the judgment that something good has been lost) because it issues from the rational faculty, and he justifies this account by appealing to his monistic picture of the human soul.

This characterization of the Chrysippean position is stated with more or less clarity in Galen, *On Hippocrates' and Plato's doctrines* 4.2.1-6 (SVF 3.463, part): "In his first definitions of the generic passions, he [Chrysippus] completely departs from the doctrine of the ancients...In these definitions he obviously mentions only the rational part of the soul, omitting the appetitive and competitive."<sup>15</sup> Galen is an unabashed enemy of the Stoics (and Chrysippus in particular) and a proponent of the Platonic tripartite model (which includes "the appetitive and competitive" parts of the soul and which he refers to as "the doctrine of the ancients"),<sup>16</sup> so his paraphrases and accounts of the strength or sophistication of the Stoic arguments must be taken with a grain of salt. Nevertheless, his report on the substance of Chrysippus' position here is generally taken to be accurate; Chrysippus attributes only a single faculty to the human soul: that of reason. Galen emphasizes this element of Chrysippus' psychology again at 5.6.34-7 (Posidonius fr. 33, 166, part): "Chrysippus, however, does not believe that the soul's passionate part is different from the rational."<sup>17</sup> In other words, the passions emanate directly from the rational faculty of the soul, which is its only faculty.

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<sup>14</sup> Gould (1970), p 168

<sup>15</sup> Inwood & Gerson (2008), pp 411-412; by "competitive" Galen is referring to the part of the Platonic tripartite soul responsible for the passions, often translated as the "spirited" part of the soul, and analogous to the auxiliaries in the "Kallipolis" of the *Republic*

<sup>16</sup> Although Galen refers to Plato as an "ancient", the two are separated by roughly 500 years, and Chrysippus sits between them chronologically: Plato (428 BCE – 348 BCE), Chrysippus (279 BC – 206 BC), Galen (129 AD – 200 AD).

<sup>17</sup> Inwood & Gerson (2008), p 413

The breach between Posidonius and Chrysippus is principally a disagreement about this psychological monism. The claim that emotions are judgments is entailed by Chrysippus' monistic psychology and is also a point of contention, but Posidonius' attacks on the identification of emotions with judgments is the beginning of a *modus tollens* aimed at refuting the psychological model on which it is based. Put succinctly, the argument runs: if the Chrysippean monistic psychology is correct, then all emotions are judgments; however, not all emotions are judgments, therefore the Chrysippean monistic psychology is incorrect.

So what does Chrysippus mean when he says that the emotions *are* judgments? The crux of the claim is that emotional activation in adult humans issues directly from the rational, controlling faculty of their psyches. A parent's grief at the death of her child *is* her judgment that her child's death is a bad thing for her, that it constitutes an evil. Furthermore, these judgments are not only about the value to our well-being of this or that external object (e.g., one's child) or event, they also involve judgments about the appropriate response. Anger, grief, fear, longing, exultation, etc. are all expressive of practical attitudes about the way we ought to act, given the circumstances as we see them. John M. Cooper offers a helpful summary in his article, "Posidonius on Emotions":

[Chrysippus'] fundamental idea, put simply and as little controversially as possible, is this...When, for example, I act from anger (and so am moved by an impulse that is also an emotion), the anger that I feel includes somehow the thought that this act of vengeance (or whatever sort of act it is) is the thing to do in the circumstances, and the intention to do it... Chrysippus' claim is only that, however much or little there may be by way of grounds on which the person feeling the anger is basing that judgment or intention, the anger involves essentially (whatever else it may involve) precisely such a summary practical thought.<sup>18</sup>

Emotion in its entirety – from its subjectively felt quality to its somatic correlates<sup>19</sup> to its behavioral consequences – is a judgment that the circumstances eliciting the emotion call for a particular reaction, and

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<sup>18</sup> Cooper (1998), p 75

<sup>19</sup> Reflex action and other pre-cognitive bodily changes do not, on their own, indicate a passion and, therefore, a false judgment. However, when a passion is present, these bodily movements are one of its components.

that reaction is the emotion in its entirety. Attempting, even conceptually, to distinguish between the judgment and the emotion is a mistake on Chrysippus' view.<sup>20</sup> This, however, is not to say, for instance, that when a prankster sneaks up behind the sage and shouts that the sage will not involuntarily jump or experience goose-flesh.

It is worthwhile at this point to note an important distinction that the Stoics make between classes of emotion. Typically, we use the word 'emotions' to refer to our affective experiences, broadly construed. However, for the Stoics, there are three categories into which an affective experience could fall. First, there are *propatheiai*, or pre-emotions.<sup>21</sup> These are somatic and visceral bodily reactions to external, physical stimuli, such as the sage's reaction to being startled from behind. These somatic reactions do not include (or have not yet been attached to) cognitive judgments or assessments of the stimuli that cause them. They are not subject to praise or blame precisely because they lack this evaluative dimension.

The second category is the *eupatheiai*. Much has been written about the *eupatheiai*, or 'good passions', but the salient feature of this category for our purposes here is their moral praiseworthiness. The Stoics recognize a category of affective experience that would be experienced by the sage, meaning it is not inconsistent with the Stoic ideal to experience 'emotions' in some sense. According to the Stoic orthodoxy, the sage will experience three categories of *eupatheiai*: 'caution', which parallels the *pathe* of fear; 'wish', which parallels the *pathe* of desire; and 'joy', which parallels the *pathe* of pleasure. Becker argues forcefully that the sage, in order to meet the challenges posed by any complex environment, will have a richly varied emotional life.<sup>22</sup> Since Chrysippus does not necessarily disagree with this claim about the complexity of the sage's emotions,<sup>23</sup> the *eupatheiai* are best left to the side in order to

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<sup>20</sup> Rist (1969), p 31

<sup>21</sup> Long (2006), p 380

<sup>22</sup> Becker (2004), p 269

<sup>23</sup> Brennan (1998), p 36

focus on the primary location of the disagreement between Chrysippus and Becker (following Posidonius), which occurs in the third and final category of affective experience.

The *patheiai*, or ‘passions’, constitute the third and final category into which Stoics will sort affective experiences. For Chrysippus, both the *eupatheiai* and the *patheiai* are judgments. The *eupatheiai*, being those of the sage, are true judgments based on perfect wisdom and virtue. The *patheiai* are false judgments by definition: “A judgment, to be a [passion], must, among other things, be false”.<sup>24</sup> If an affective experience were based on a true judgment, it could not possibly be categorized as a passion. So, with this distinction now made, we can see a little more clearly the importance of Chrysippus’ insistence that the emotion *just is* the judgment – the passion *just is* the *false* judgment. Thus, Chrysippus’ recommendation to completely eliminate the passions is intelligible if one understands that he is advocating for the elimination of a category of error in judgment. When one experiences grief at the death of a loved one, Chrysippus’ position is that one is incorrectly estimating the value to oneself of that person who has died. External and bodily goods, such as the survival of one’s loved ones, are not *good* because they are not *unqualifiedly* good. The Stoic position is that virtue is the only thing that is *always* good for one to have; toward everything else one should be indifferent.

Thus, if one is wracked with grief at the death of one’s child, one has judged that the child’s death is *bad* for oneself, which is a false judgment on Chrysippus’ view. The grief just is this (incorrect) estimation that something of *real* value to oneself has been irrevocably lost. The sage would not feel grief at the death of her child because she would not judge that she has lost anything of real value to her. This is not to say that the sage would not or should not exert herself to the utmost to preserve her child’s life; the point is simply that the sage recognizes that the only thing that it would be *truly* bad for *her* to lose is her virtue. At this point, one might ask what it is that motivates the sage to pursue her

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<sup>24</sup> Gould (1970), p 188

child's welfare if she doesn't consider it to be a genuine good for her, and it is that question to which I turn now.

There are two claims here that need to be distinguished. First, there is Chrysippus' claim that passions are identical with false judgments about the value of externals. This claim is the Stoic orthodoxy, though it is not shared by Becker and Posidonius. However, the second claim is also Stoic orthodoxy, and it is a claim that Chrysippus, Posidonius, and Becker agree upon. The second claim is that only virtue is genuinely good and only vice is genuinely bad. While both the first and second claims may appear implausible, it seems more likely that objections to a viable Stoic ethical project will focus on the second claim more than the first. Since the second claim is also the one that Becker and Posidonius will want to retain, I want to offer some brief comments in favor of its plausibility.

The claim that virtue is the only genuine good is certainly a distinctively Stoic claim,<sup>25</sup> and it is also frequently cited by Stoicism's critics as a reason not to take Stoic ethics seriously. However, the basis of the attack on this Stoic claim typically hinges on a misunderstanding – or ignorance – of the Stoic position on the 'indifferents'. The indifferents are all those things that are neither good nor bad in an unqualified way (i.e., that are neither virtue nor vice), in other words, the vast majority of things which humans could and often do imbue with a positive or negative value: health, wealth, one's children, etc. It is true that the Stoic claim is precisely that none of these things is truly good, and it can be conceded that the Stoics did not make the task of winning adherents to their philosophy any easier for themselves by naming this class of things 'indifferent'. Nevertheless, a proper understanding of the way in which the Stoics conceived of their claim that only virtue is good, as well as how they thought the sage would act toward the indifferents, does much to make this claim more plausible.

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<sup>25</sup> The claim that virtue is the only genuine good has also been plausibly attributed to Socrates in many of Plato's dialogues, such as the *Gorgias*.

First and foremost, virtue is the only good because virtue is the only thing that is *unqualifiedly* good. Becker advances a plausible defense of this position:

Everything else (pleasure, for example) is only conditionally good. Apparent counterexamples turn out to depend implicitly on the circumstances; usually on the virtue of others. Consider benevolence, kindness, friendship, love. Can those ever be bad or indifferent things? Surely not, we want to say. But in doing so we also want to exclude busybody benevolence, fussy friends, smothering love, and so on from what we are endorsing... But then it is clear that we have simply hidden a condition of appropriateness (in the form of virtue in the friend or lover) in the concepts. What is it, after all, that makes having the friendship of a sage seem to be an unconditional good, when having the “friendship” of a fool or knave is so clearly a conditional one? The difference lies in the fact that the friendly sage always acts appropriately. The good of her friendship thus turns out to depend on her virtue. And virtue alone is unconditionally a good.<sup>26</sup>

So, virtue’s status as the sole good is tied to the fact that it is the only thing which is an unqualified boon. In any situation, under any circumstances, virtue (which, for Becker’s project, is shorthand for the perfection of our agency) can only benefit us.

Additionally, Becker argues against the typical misinterpretation of the Stoic position on the indifferents. Critics will correctly point to the most cherished human relationships as examples of Stoic indifferents, but they will incorrectly claim that the Stoic move of categorizing them as indifferent entails an inhuman<sup>27</sup> absence of attachment – an absence that, they argue, is ultimately damning for the viability of the Stoic project. But, as Becker points out: “We do not want to *be* detached; we want to be *able* to detach ourselves when that is necessary to preserve our agency”.<sup>28</sup> So, intuitions we seem to have that the sudden dissolution of certain relationships in which we participate (e.g., as spouses or children or parents) have *appropriate* emotional responses is rejected by the Stoics. The general idea advanced by critics here is that if our children die and we do not respond with grief, then we are not acting (and feeling) appropriately. The Stoic claim that we should meet the death of our loved ones with equanimity would, according to the criticism, entail that we did not *really* care about them at all, and if we do not

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<sup>26</sup> Becker (1998), p 121

<sup>27</sup> See also Irwin (1998) for arguments against the charge of Stoic inhumanity.

<sup>28</sup> *Ibid*, p 156

care enough about our loved ones to react to their deaths with grief, then we are somehow morally deficient. Becker argues that the sage will simply never allow herself to be *overcome* by emotion. In spite of the fact that she does not judge their loss to be a bad thing for her, the sage might still feel some of what we would characterize as grief (a clenching of the heart, a wave of nausea, even tears) at the death of her loved ones, but this will never impair the exercise of her agency. It would not be altogether incorrect to classify these feelings as pre-emotions inasmuch as they proceed in the absence of a rational judgment that the loved one's death constitutes something bad for the sage. As such, the sage's perfected agency—her virtue—will allow her to successfully cope with these pre-emotions by recognizing them as inaccurate representations of the situation. As a result, *crippling* grief is something she will never undergo.<sup>29</sup> And it is on this point that Becker departs from the Stoic orthodoxy of Chrysippus; Chrysippus and Becker (along with Posidonius) agree that virtue is the only good and that this does not prevent the sage from acting toward the indifferents in ways we would recognize as thoroughly human and commendable, but they part company to the extent that Chrysippus insists that the sage will not feel any emotional pain whatsoever at the death of her loved ones.

An objection worth considering here is that while it might seem more realistic to suppose that even the sage will feel some pain at the death of her child, and, in fact, that not doing so would be inhumane, this is only because most people are going to reject the second Stoic position that says that only virtue is good and only vice bad. If this position (that only virtue is good) is accepted, though, as Becker and Posidonius do, then it looks like the sage who grieves about something which she also knows is not genuinely bad is acting irrationally, which would make her a non-sage. The reply to this objection is simply that grief – understood as the judgment that something bad has transpired – will never be an activity in which the sage engages. However, because certain affective elements typically attendant upon and associated with feeling grief (e.g., tears) can occur in the absence of this judgment, the sage might

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<sup>29</sup> Of course, this constraint on the sage is something every ancient ethical theorist is bound to accept.

momentarily appear, from the outside, to grieve. In reality, though, she will not form the judgment that her child's death is bad for her. This issue will be treated in more detail in section 2.2.

Chrysippus' view, then, is that the soul has only a single faculty – namely the rational<sup>30</sup> one – which produces evaluative propositional judgments in response to the perception of the world (being composed of external and bodily concerns) received through the senses. Passions occur when the soul produces a false judgment about the importance of external or bodily concerns to our overall well-being or happiness. The strict identity that Chrysippus maintains between the passion and the false propositional attitude is worth reiterating:

The emotion is a movement of the soul necessarily consequent upon an evaluative judgment and occurs in one and the same *hegemonikon* or controlling part of the soul as the judgment, and there is full continuity between a particular occurrence of a type of evaluative judgment (that a certain available object is good or appropriate, say) and the particular resulting motion...the cause (the particular act of judgment) and effect (the particular pursuit of the object) are always present together, and there are no grounds for separating them.<sup>31</sup>

That Chrysippus would acknowledge no “grounds for separating” the judgment and the emotion, even theoretically, is a consequence of his monistic psychological model. In a Platonic or Aristotelian psychological model it is perfectly intelligible to separate a judgment issuing from the rational faculty and a coinciding passion because the passion emanates from a separate faculty within the soul.<sup>32</sup> Chrysippus and the early Stoics acknowledged no such distinctions within the soul between reason and other faculties like the spirited or appetitive that Plato and Aristotle posit.

What *apatheia* looks like on Chrysippus' psychological model is a function of its monism. For Chrysippus, the elimination of the passions (i.e., achieving *apatheia*) entailed tranquility. The sage will

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<sup>30</sup> It is important to note that although Chrysippus refers to the ruling faculty of the soul – the *hegemonikon* – as the rational part, this is not the claim that it cannot make mistakes or act irrationally.

<sup>31</sup> Strange, Steven K. (2004), pp 42-43

<sup>32</sup> The Platonic and Aristotelian moral psychologies are much more nuanced than would seem to be suggested by the oversimplification I offer here. My central concern is to indicate that Chrysippus' theory does not allow for passion and judgment to come apart in any way.



possess tranquility because she does not make false judgments, and passions *are* false judgments for Chrysippus. Of course, it's worth remembering that Chrysippus does not conceive of tranquility as the absence of what we would call emotions, since the sage would still experience the *eupatheiai*. However, Chrysippus *did* think that *apatheia* would have entailed the absence of motivational and emotional conflict within the mind of the sage; this is because Chrysippus only posits a single faculty in the mind – reason. Simply put, if an individual has made a correct judgment about her situation (and has not made any incorrect evaluative judgments inconsistent with it), Chrysippus would say that it is impossible that she feel a countervailing affective impulse.

Becker, following Posidonius, finds the causal austerity of Chrysippus' monistic model insufficient to explain the phenomena of the emotions. The introduction of additional causal complexity into the psychological picture (by positing that affective impulses can originate apart from the judgments of the rational faculty) is intended to remedy this insufficiency, but it also has consequences for the nature of *apatheia*. Becker argues that the sage will still experience a profound tranquility in spite of the fact that her agency continues to be subject to emotional conflict. All of the sage's judgments are still correct, but this does not entail the absence of emotional conflict. Likewise, the presence of emotional conflict does not entail the absence of a tranquility worthy of the sage.

## 2.2 The Moral Psychology of Posidonius

Posidonius' moral psychology is best differentiated from Chrysippus' principally through a series of pointed queries Posidonius launches at Chrysippus' monistic model. These queries are aimed at the explanatory insufficiencies of Chrysippus's account of the complete identity of judgment and emotion, and are reported verbatim by Galen in *On the Doctrines of Hippocrates and Plato* 4.5.26ff. The passage itself is lengthy and abstruse, but its primary thrust consists of a series of apparent counterexamples to Chrysippus' assertion that judgment and passion are identical. In regard to this passage from Galen, Becker says:

It is not entirely clear what Posidonius' positive position is on this matter [of moral psychology]. He rejects a direct and complete belief-to-desire account, but need not be interpreted as endorsing a Platonic tripartite soul. The most plausible view, we think, is that these texts are consistent with the line we take here: (1) Agency is a single faculty, but a permanently complex one. Its primal elements (impulses, reflexes, etc.) are not rooted out by reason and stoic training, and are thus present in the sage. (2) Under conditions agents face repeatedly throughout their lives, elements of primal agency generate false beliefs and thence disturbing emotions and passions... (3) Stoic training (that is, the perfection of agency) allows us to cope with such disturbances successfully, much as we learn to cope with perceptual illusions.<sup>33</sup>

Becker goes on to draw out the analogy of perceptual illusions by suggesting that, when the "conditions are right," even the sage will see the emotional equivalent of a mirage in the desert. It is hardly a stretch to imagine that the death of the sage's child would generate one of these mirages.

The contention here is that the sage will be pushed by the 'primal' elements of her agency toward the (false) judgment that the death of her child is bad for her. In non-sages, perhaps, this push is substantial enough to actually generate the false judgment and the resulting, full-fledged passion of grief, and in the sage this primal push might even begin to manifest itself with outward signs of affect (tears, etc.). However, the perfected agency of the sage does not succumb to the influence of its primal elements because she will recognize the influence of this primal aspect of her agency for what it is, and will not, on the basis of its impulses, form the considered judgment that she has been harmed by her child's death. In Becker's words:

The thirsty traveler salivates in relief upon seeing an oasis mirage in the desert, but that "disturbance" dissipates quickly when he learns that there is no oasis. A sage will see mirages, too, whenever the perceptual conditions are right. He just won't fall for the illusion for long. His reason will correct his beliefs, and with that, his affect. Similarly for the somatic states (e.g., arousal reflexes of various sorts) that persistently generate false beliefs, which in turn generate disturbing passions. In the sage, such disturbances will dissipate quickly, when reason corrects the false beliefs.<sup>34</sup>

Thus, what we have is not exactly Platonic tripartition, but neither is it the psychic monism of Chrysippus. Galen, of course, is convinced that Posidonius is a full-blown Platonist (like himself) and endorses

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<sup>33</sup> Becker (1998), pp 130-131

<sup>34</sup> Ibid, pp 130-131

the tripartite model of the soul, but one of his paraphrases—*On Hippocrates' and Plato's doctrines* 5.5.8-26 (Posidonius fr. 169, part)—seems to provide some corroboration for this construal of Posidonius as occupying some theoretical space between Chrysippus and Plato (or Aristotle): “Posidonius criticizes Chrysippus...holding that impulse is sometimes generated as a result of the judgment of the rational part, but often as a result of the movement of the passionate part.”<sup>35</sup> Becker would seem to want to read “passionate part” in the above as analogous to his “primal elements” of agency. The “impulse” is the seed that produces a passion if a passion is produced, but Posidonius and Becker leave room for this impulse to be countermanded by the rational understanding of the sage. It is significant that this impulse is not in all cases generated by the rational part of the psyche, since this creates theoretical space for the sage (whose reason could never be the source of passion) to experience a kind of emotional turbulence, if only for a moment. Not only does this view of the emotional life of the sage more closely resemble common experience (which makes it easier to motivate oneself to attain to the ideal, one of the goals of Stoicism), it is also in accordance with the empirical findings.

However, Becker does break with Posidonius regarding the acceptable range of affective arousal permitted for the sage. One of the counterexamples to the Chrysippean identity of passions and judgments that Posidonius provides in the passage referenced at the beginning of this section (4.5.26ff) runs as follows: If passions are judgments originating in reason, then we would expect the sage to be exceptionally passionate about virtue, since she judges correctly that it is the only genuine good. But, since we do not find this to be the case in the sage, it cannot be that a strict identity exists between judgment and passion. Becker takes issue with Posidonius' theoretical presumption that the sage would never experience the heights of emotional arousal:

Nonetheless, it may be that when ancient stoics (even Posidonius) tried to imagine what kind of affective life would follow from the sage's beliefs, they were too quick to think that it would be tranquil one...But as Posidonius himself suggests, if passions in the ma-

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<sup>35</sup> Inwood & Gerson (2008), p 415

ture agent supervene upon beliefs, then sages *ought* to be the very people *most* passionately affected by virtue—and be *surpassingly* passionate about it because they perceive it to be surpassingly valuable.<sup>36</sup>

Thus, Becker proposes an account of the Stoic sage as an individual capable of intense emotional experiences that “even...an Aristotelian would find wildly immoderate,”<sup>37</sup> provided they are grounded in true judgments. Such a claim immediately seems to make the Stoic sage seem a great deal more human than previous descriptions from Stoic orthodoxy would suggest, which leads to a discussion of the psychological realism of Becker’s alternative model and the kind of sage it envisions.

Owen Flanagan, in *Varieties of Moral Personality*, argues for moral theories to be assessed according to how well they accord with a meta-ethical principle he calls the “Principle of Minimal Psychological Realism” (or “PMPR”), which he sets out as follows: “Make sure, when constructing a moral theory or projecting a moral ideal that the character, decision processing, and behavior prescribed are possible, or perceived to be possible, for creatures like us.”<sup>38</sup> In spite of the fact that Flanagan’s next claim is that any moral theory that requires the morally excellent person to possess every virtue would not satisfy PMPR (which is what Stoicism does require, although it also claims that virtue is actually a single thing rather than many), Becker argues that his revamped Stoic theory does satisfy PMPR:

Despite the formidably virtuosic character of the stoic sage (who is, after all, a kind of theoretical limit or convergence point at infinity), we believe stoic moral psychology satisfies Flanagan’s principle, especially in the way he unpacks its four requirements...The sticking point is clearly the ideal of the sage. Here we think it is sufficient, to meet the requirement of minimal psychological realism, to have shown that the motivational structure needed to *pursue* the ideal is practically possible, and that achieving the ideal is theoretically possible. In fact, we think our account is realistic in much stronger ways than that.<sup>39</sup>

At the very least, the psychological realism of Becker’s Stoic moral theory eclipses Chrysippus’ model.

Not only would it seem to be the case that Becker’s Stoicism satisfies PMPR where Chrysippus would fail

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<sup>36</sup> Becker (1998), p 132

<sup>37</sup> Ibid, p 131

<sup>38</sup> Flanagan (1991), p 32

<sup>39</sup> Becker (1998), p 124

to do so, it will become clear in the following chapter that the empirical evidence from vmPFC damage falsifies Chrysippus' moral psychology while leaving Becker's intact.

In contrast to Chrysippus' monistic model, Becker offers an alternative moral psychology (traced back to the thought of Posidonius) that, among other differences, does not hold a strict identity between judgment and passion. In the next chapter I will examine the empirical evidence from vmPFC damage that suggests that judgment and emotion can become detached from one another, which Becker's moral psychology can account for while Chrysippus' cannot.

### 3 EMPIRICAL EVIDENCE IN SUPPORT OF POSIDONIUS

A number of studies have examined the psychological and behavioral effects of vmPFC lesions. In general, these lesions cause severe detriments to VM patients' decision-making capacities. Interestingly, vmPFC damage leaves intact the VM patients' capacity for high-level reasoning, both moral and non-moral. The vmPFC damage does, however, typically produce a deficit of affective arousal, and it is hypothesized that the absence of this emotional element explains VM patients' difficulties with decision-making. Whether the empirical findings bear on the question at issue will turn on the strength of the Chrysippean thesis. If, as would seem plausible, Chrysippus held that a strict identity existed between emotions and judgments, then the evidence about our moral psychology gathered from studying vmPFC damage would seem to rule out the possibility of the Chrysippean thesis. In other words, the identity between emotions and judgments in the Chrysippean model implies that it would be impossible for emotion and judgment to, in any way, come apart. If an individual, without manifesting any of the typical bodily signs of grief (as measurable by fine-grained scientific instruments), claims to have judged that it is bad for her that her child has perished, then the strong Chrysippean thesis is bound to claim that this individual could not possibly have *really* formed the judgment that her child's death constitutes an evil for her. She would just be uttering a false statement.

There is a way in which this strong Chrysippean thesis lines up with our folk intuitions. That is, we would expect it to be said of a parent recently bereft of her child that she could not have *really* loved her child if she fails to grieve at the child's death. The claim is that if she fails to manifest even the subtlest markers of grief when presented with a video, say, of her recently deceased child, we would be hard pressed to take her at her word when she claims she genuinely loved her child and grieves his death. Because grief can only count as a *pathê* – and thus a false judgment about the worth of an external – the Chrysippean thesis makes a similar claim about the opposite situation. Namely, that the emotion (passion) of grief *just is* the judgment that some highly valued good has been irrevocably lost. Thus,

if the emotion of grief is not present, then the judgment that a valued good has been lost cannot have been made.

The evidence from patients with lesions in their vmPFCs is relevant to this thesis because it seems to suggest that moral judgments<sup>40</sup> and their corresponding emotional components can be severed from one another. According to the strong Chrysippean thesis, this should not be possible. However, the evidence gathered from observing and testing individuals suffering from lesions to their vmPFCs suggests that they can still make cogent judgments about hypothetical moral scenarios without manifesting the somatic arousal states that typically accompany such judgments in neurotypical (i.e., normal) individuals. The applicability of hypothetical scenarios might seem questionable, but the evidence shows that neurotypical individuals manifest measurable physical indicators of affective arousal while making judgments about hypothetical scenarios. The absence of these indicators in patients with vmPFC damage (abbreviated hereafter as VM patients), I will suggest, counts against the strong Chrysippean thesis. In the following subsections I will present a summary of the effects of vmPFC damage, an overview of the experimental conditions within which vmPFC damage has been studied to determine these effects, and the implications of these findings for the moral psychology of both Chrysippus and Becker's Posidonian-inspired alternative.

### **3.1 Summary of the Effects of Ventromedial Prefrontal Cortex Damage**

The vmPFC is a region of the brain associated with coordinating a diverse group of neurological functions situated in various areas throughout the brain; among these are declarative knowledge, reasoning, perception, and emotion.<sup>41</sup> Damage to this area of the brain has a very peculiar list of effects.

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<sup>40</sup> Not all judgments are moral judgments, but for Stoic ethics all judgments about appropriate action are moral judgments because all action has a moral component.

<sup>41</sup> Roskies, Adina (2003), p 55

While those who have incurred injuries to their vmPFC invariably exhibit the telltale signs of that damage, they retain the vast majority of their cognitive abilities. Adina Roskies summarizes the results of several studies in compiling a standard behavioral profile of a VM patient. Specifically:

VM patients appear cognitively normal on a wide spectrum of standard psychological tests, including those measuring intelligence and reasoning abilities, and indeed, in casual encounters these patients may seem normal. However, VM patients all appear to have particular difficulty in acting in accordance with social mores, despite their retained ability to judge appropriately in such situations.<sup>42</sup>

The otherwise normal VM patient, then, develops an inability to judge and act appropriately. Roskies stresses that the codes of behavior the VM patient fails to adhere to are not strictly social conventions but more widely held moral convictions as well.<sup>43</sup> For example, not only do they typically develop inordinate proclivities for sexually promiscuous behavior, they also lie to close friends and family members about trivial matters. Furthermore, and more importantly for the purposes of this essay, VM patients experience a dramatic drop in emotional arousal:

VM patients display and report attenuated or absence of affect when faced with situations that reliably elicit emotions in normals... In ethically-charged situations, VM patients seem to lack appropriately motivational and emotional responses, both at the level of their own subjective experience, and with regard to normal physiological correlates of emotion and motivation.<sup>44</sup>

The extent to which the VM patients' emotions have been diminished appears to vary in each individual case, with some retaining more or less of their previous capacity to emote in various situations, but the central feature of radically reduced affective experience remains.<sup>45</sup> However, the behavior of the VM patients stands in stark contrast to what Chrysippus might have expected from individuals with extirpated, or nearly extirpated, passions. While the VM patients are not, strictly speaking, sociopaths – as

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<sup>42</sup> Ibid, p 56

<sup>43</sup> Ibid, p 57

<sup>44</sup> Ibid, p 57

<sup>45</sup> Bechara *et al* (2000), p 295



they can still distinguish between morality and social convention – they are certainly not what one would describe as paragons of virtue.

One well-known example from the literature on vmPFC damage is identified only as EVR,<sup>46</sup> whose post-lesion behavior is typical for VM patients: “He manifests severe defects in decision making, ability to judge the character of others, and in his abilities to plan activities on a daily basis and into the future”.<sup>47</sup> Specifically, after his lesion EVR divorced his wife, rapidly remarried, and subsequently divorced his second wife after a short interim. EVR had been, prior to incurring his lesion, financially successful and business savvy. After the lesion EVR engaged in a series of disastrous business endeavors and has been unable to hold a job, forcing him to live in a sheltered environment.<sup>48</sup> Next, I will give a brief overview of the experimental design employed to illustrate the connection between affective arousal and appropriate action.

Bechara *et al* (2000) employed a card task designated ‘the gambling task’ whose purpose was to simulate that unpredictability of reward and punishment in “real-life situations”. The task is described as follows:

The task involves four decks of cards, named A, B, C, and D. The goal is to maximize profit on a loan of play money. Subjects are required to make a series of 100 card selections, but are not told ahead of time how many card selections they are going to be allowed to make. Cards can be selected one at a time, from any deck, and subjects are free to switch from any deck to another, at any time and as often as they wish. The decision to select from one deck or another is largely influenced by schedule of reward and punishment. These schedules are pre-programmed and known to the examiner but not the subject.<sup>49</sup>

Two of the decks (A and B) reward the subject with \$100 for every selection, and the other decks (C and D) reward the subject with \$50. The decks also penalize the subject randomly (in the case of decks A and B) \$1250 per every ten cards and (in the case of decks C and D) \$250 per every ten cards selected. Thus,

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<sup>46</sup> First described in Eslinger & Damasio, 1985.

<sup>47</sup> Barrash *et al* (2000), p 356

<sup>48</sup> *Ibid*, p 356

<sup>49</sup> Bechara *et al* (2000), p 297

decks A and B are disadvantageous over the long term and result in overall losses, while C and D provide overall gains in the long term.

At the beginning of the task, both normal control subjects and VM patients sample randomly from all decks and then favor decks A and B for their larger rewards. However, as the punishments begin to accrue, normal control subjects gradually begin to make more selections from decks C and D and fewer from A and B as the task progresses. By contrast, VM patients persist in selecting disproportionately from the disadvantageous decks of A and B. As Bechara *et al* note:

These results demonstrate that the VM patients' performance profile is comparable to their real-life inability to learn from their previous mistakes. This is especially true in personal and social matters, a domain for which in life, as in the gambling task, an exact calculation of the future outcome is not possible and choices must be based on approximations.<sup>50</sup>

Importantly, these approximations are hypothesized to rely in large part on the emotions—specifically somatic activation—of the subjects. In the case of VM patients, however, this emotional component is missing or highly attenuated, and Bechara *et al* speculate that the VM patients' inability to track and retain information about positive and negative outcomes at the somatic level is at the root of their anomalous behavior.

Accordingly, another version of the gambling task was run in which the skin-conductance response<sup>51</sup> (abbreviated SCR hereafter) of both neurotypical individuals and VM patients were monitored. This experiment was designed to determine whether the autonomic, somatic arousal of VM patients differed markedly from normal test subjects. The subjects' SCRs were measured just before and after they chose a card from a deck. Thus, three different types of SCRs were recorded: (1) Reward SCRs (those occurring after a subject picks a card with a reward only), (2) punishment SCRs (those occurring after a

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<sup>50</sup> Ibid, p 298

<sup>51</sup> SCRs (also known as 'galvanic skin response') are taken as an indicator of psychological arousal. They are a measure of the electrical conductance of the skin as a function of its moisture level, which is controlled by the sympathetic nervous system via the sweat glands.

subject picks a card with a reward and a punishment), and (3) anticipatory SCRs (those occurring while a subject deliberates prior to a selection).<sup>52</sup> VM patients demonstrated a telling inability to generate anticipatory SCRs toward the more punishing decks, while normal subjects' anticipatory SCRs were most pronounced just before selecting from these decks. The authors elaborate:

The results...reveal that normal controls and VM patients generate SCRs as a reaction to reward or punishment. Normal controls, however, as they become experienced with the task, also begin to generate SCRs before the selection of any card. The anticipatory SCRs generated by normal controls: (i) develop over time (i.e. after selecting several cards from each deck, and thus encountering several instances of reward and punishment); and (ii) actually become more pronounced before selecting cards from the disadvantageous decks (A and B). These anticipatory SCRs are absent in the VM patients.<sup>53</sup>

These data suggest that the detrimental decision-making of VM patients seems to be linked to their inability to process reward and punishment calculations autonomically through 'somatic markers'.<sup>54</sup> In other words, the emotional activation—broadly construed—of normal subjects allows them to discern a pattern of advantageous behavior amidst what appears to them at first as a chaotic series of reward and punishment. The VM patients, lacking the (full) capacity for this kind of emotional activation, are unable to so navigate the gambling task.

The underlying mechanisms governing the salient features of the environment—the reward and punishment schedules of the card decks, which they are unaware of initially—register affectively for neurotypical individuals, which suggests that emotions play a critical role in guiding appropriate moral behavior. As the subjects progressed through the gambling task, many of them came to a conceptual (and propositionally expressible) understanding of the reward and punishment schedules of the four decks. Crucially, about half of the VM patients tested arrived at a conceptual understanding of these fea-

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<sup>52</sup> Bechara *et al* (2000), p 298

<sup>53</sup> *Ibid*, p 299

<sup>54</sup> Damasio (1994)

tures, such that they could describe them to experimenters. *Nevertheless*, these same VM patients continued to select cards from the disadvantageous decks.<sup>55</sup> In other words, VM patients were able to conceptualize and express an accurate theoretical observation about their environment but remain unable to connect this to a practical motivation to act in their own best interest; a merely conceptual or cognitive grasp of the appropriate course of action was insufficient to motivate the VM patients to act in accordance with what they knew was best for them. According to Chrysippus' monistic moral psychology, such an event should not be possible because the judgment and the (motivating) emotion are identical.

### 3.2 Implications for Stoic Moral Psychology

The above data gleaned from studying VM patients suggests that judgments and emotions are separable in principle, which rules out the possibility of a monistic moral psychology such as the one Chrysippus offers. At the same time, the alternative moral psychology offered by Becker has no problem accommodating these findings because it makes no such claims of identity between judgment and affect.

The empirical evidence challenges Chrysippus' monistic model because the VM patients are able to conceptualize and express their judgment that the disadvantageous decks (A and B) are, in fact, disadvantageous, but do not register an anticipatory affect and continue to select cards from these decks. As the evidence shows, the VM patients—unlike neurotypical control subjects—do not register the anticipatory SCRs prior to selecting from the disadvantageous decks, and Bechara *et al* hypothesize that this affective deficit is helpful in explaining the VM patients' persistence in selecting from these decks—again, unlike the neurotypical controls—despite their judgment that doing so is disadvantageous. Thus, while the neurotypical control subjects both (1) judge decks A and B to be disadvantageous, *and* (2) register an anticipatory affect, the VM patients are engaging in only (1) but not (2). For Chrysippus, (1) and

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<sup>55</sup> Bechara *et al* (2000), p 301

(2) are both products of a single rational faculty; they are identical and consequently inseparable. The VM patients' capacity to form the judgment without also registering the affect demonstrates that Chrysippus' model is false.

A defender of Chrysippus might argue against the application of the evidence from vmPFC damage by claiming that, since the victims of vmPFC damage did not themselves effect the elimination or reduction of their passions, they obviously cannot be said to have become more virtuous. Therefore, the apparent inability of VM patients to act in accordance with virtue is no surprise. Excision of the passions via brain lesion is different in kind from the internal extirpation of the passions. Since the Stoics believe that the passions arise from the mistaken valuing of externals, the extirpation of the passions takes place by ceasing to value inconstant external things and instead valuing only what is internal to oneself. I imagine the Chrysippean rebuttal as claiming that damaging the vmPFC is not sufficient for this shift in value. And, indeed, as far as the evidence goes, it appears that VM patients continue to value externals to the same degree as they did prior to their injuries.<sup>56</sup> Patient EVR, for example, pursued financial gain and sexual partners after his injury to the general detriment of his financial situation and marital relationships. Speaking in broad terms, VM patients continue to be motivated to pursue these ends (money and sex) but do so to the near-complete exclusion of other concerns, which is indicative of their pathology—defective decision-making.

However, the claim here is not that vmPFC damage is a shortcut to sage-hood. My claim is that the evidence gathered from studying VM patients appears to contradict the underlying assumption of Chrysippus' ethical injunction to eradicate the passions. It is not clear how one could assert that emotions (passions) are false beliefs and harmful to virtue without implying by extension that, *ceteris paribus*, removing emotions would immediately render us *more* virtuous, if for no other reason than that we would have thereby removed a type of false belief. This would seem to be precisely Chrysippus' claim;

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<sup>56</sup> Damasio *et al* (1990), p 82

passions *are* false judgments about the value of externals. We are given no reason within Chrysippus' monistic moral psychology to suppose that the absence of the physiological and subjective elements of the passions should not entail the absence of the false belief. Judging by the numerous moral and social errors committed by VM patients, however, the opposite seems to hold. Instead of becoming more virtuous after having been divested of the capacity for certain kinds of affective arousal, individuals appear to become far more prone to making very poor life decisions. The failings of VM patients run the gamut from petty lying and theft to a proclivity for blatantly unwise financial decisions, an inability to hold down a steady job, or, in at least one case, a 6-month marriage to a prostitute.<sup>57</sup>

However, these and similar anecdotes of the negative consequences of vmPFC damage in the lives of those who suffer from it, Chrysippus could argue, might simply arise as a result of the VM patients losing their ability to emote without first properly aligning themselves toward virtue. In line with the previous objection that vmPFC damage should not be construed as an appropriate avenue toward the acquisition of wisdom, Chrysippus can plausibly claim here that VM patients' ruined lives are not necessarily evidence against his moral psychology. Perhaps the VM patients so far studied were simply not virtuous enough prior to their injuries to act in the ways that a virtuous person would without the attendant emotional motivation. It is conceivable, Chrysippus might argue, that vmPFC damage will not *necessarily* lead the sufferer to make the same social and moral mistakes documented in the given studies. This, though, is not nearly as damaging to Chrysippus' psychological monism as is the other salient feature of vmPFC damage--namely, that VM patients retain their moral reasoning ability, but that they simply fail to be motivated by the conclusions they reach.<sup>58</sup> The apparent motivational power of emotional arousal to guide and ensure correct moral action suggests that reason alone is not enough to guarantee virtue.

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<sup>57</sup> Damasio *et al* (1990), p 82

<sup>58</sup> Roskies (2003), p 56

It should be noted that the implications of the vmPFC evidence are less clear when applied to a weaker Chrysippean position or other more moderate Stoics. Chrysippus' identification of the passions with judgments allowed him theoretical room to call for the extirpation of the passions. If our passions really *are* judgments about external things we believe are valuable, then, as the products of our reason, we ought to be able to modify them through Stoic moral training. This training would eventually culminate in the complete rectification of our beliefs and processes of judgment, entailing the eradication of the passions. However, this position is also more vulnerable to the neuroscience evidence at hand. The support for this claim seems clear: if an individual does not experience a passion, then, according to Chrysippus, he or she has not made a judgment acknowledging value in external things. If the passion and judgment are identical, Chrysippus has very little maneuvering room to avoid the implications of the evidence from vmPFC damage. The ancient Greek schools knew that passions and judgments were very closely tied together, but Chrysippus' position that passions and judgments are identical is not characteristic of all Stoic thought: "[Plato, Epicurus, Aristotle, and Zeno], then, defended a close and intimate connection between passion and belief; but this connection stops short of identity".<sup>59</sup> So, a more moderate Stoic position (such as Posidonius'),<sup>60</sup> which merely holds that a judgment is *necessary* for the corresponding passion, might evade the implications of vmPFC damage for their monistic moral psychology. Since, plausibly, all the vmPFC damage might be said to do is sever the causal link between judgments and their corresponding emotions, Posidonius could claim that VM patients still very clearly retain, post-injury, the false beliefs which cause the passions, and there is no reason whatsoever to attribute to such persons any greater virtue than they possessed before their injuries.

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<sup>59</sup> Nussbaum, Martha C. (1994), p 372

<sup>60</sup> And, *a fortiori*, Becker's.

This same defense is more difficult, if not impossible, for Chrysippus to make. He would have to show that passions and judgments were *not* identical in the particular context of vmPFC damage. However, it is not clear how this could be done without undercutting the theoretical foundation of his extirpation project. Some caution here is warranted, however, and it is worth drawing attention to the relative dearth of evidence from vmPFC damage. Not only are VM patients a very rare phenomenon, but thus far the studies that have been conducted on the psychological effects of their injuries have not been aimed at answering philosophical questions, much less settling a dispute between ancient Stoics.

As Roskies notes:

The available data are inadequate to settle the question...The sorts of tests that VM patients have been submitted to in order to characterize their deficits have been undertaken with a clinical and neuropsychological perspective, not a philosophical one, and consequently have not been ideally suited to determining the precise character of their moral deficits or to resolving questions of philosophical relevance.<sup>61</sup>

Thus, the claim based on these studies that the passion and the judgment are *not* identical – that they can, in fact, come apart in a way that Chrysippus' monistic moral psychology would seem to rule out – can only be a tentative one at this point. Further studies, which are designed more specifically to address these philosophical concerns, are needed to settle the issue, and Roskies, among others,<sup>62</sup> acknowledges this deficit.

Even with this caveat in mind, however, there are some further points that can be made. Most importantly, assuming that subsequent studies confirm what is suggested by the initial findings, namely that VM patients make judgments (especially moral judgments)<sup>63</sup> without experiencing the typical attendant emotional activation, the moral psychology outlined by Posidonius can be shown to be con-

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<sup>61</sup> Roskies (2008), p 200

<sup>62</sup> Damm, Lisa (2010), p 287

<sup>63</sup> For a discussion of this issue cast in terms of the debate between motive internalism and motive externalism, see Roskies (2006) and Cholbi (2006).



sistent with the in-principle detachability of emotion and judgment. For Posidonius and Becker, the empirical findings generated by studying VM patients illustrate their model's claim that the judgments produced by the rational part of the psyche are dissociable from the affective part. The evidence further illustrates Becker's claim<sup>64</sup> that, in fact, affect is crucial for virtuous action. Additionally, the ethical program Becker advances, which is descended from this psychological model, is still distinctively Stoic.

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<sup>64</sup> Also made by other ethical theorists (e.g., Aristotle).

#### 4 CONCLUSIONS

If Chrysippus' monistic moral psychology is ruled out by the evidence from vmPFC damage, then this implies that the Stoic normative claims made on the basis of this moral psychology would be subject to revision. The chief normative claim made by the Stoics on the basis of the Chrysippean model is that the passions should be extirpated – in other words, that the sage would be utterly free of emotions that conflicted with her considered judgments. As we have seen, the complete removal of the *patheiai* (i.e., passions) was predicated on the thesis that they were erroneous propositional judgments issuing from a single rational faculty within the psyche. Their eradication could be effected by rectifying the cognitive errors being made by the rational faculty generating them.

However, without the monism of Chrysippus' moral psychology, the injunction to *completely* root out the passions is no longer underlain by a theoretical claim that establishes the possibility of such an endeavor. Furthermore, the claim that the sage's emotional experience would always conform to her reasoning is similarly undermined. If 'ought' implies 'can', then the 'can' here is grounded in a falsified moral psychology, which would imply that there is no longer any binding 'ought' claim. If the extirpation of the passions through the exercise of Stoic cognitive therapies is not possible, then there is no obligation for agents to attempt to extirpate their passions.<sup>65</sup>

The alternative moral psychology offered by Becker, drawing on Posidonius, states that, while emotional activation and rational judgment may be deeply intertwined, they are not identical. There is, then, no reason according to this model to conclude that the sage would never experience feelings in conflict with her judgments or that a complete elimination of the passions were possible (or even desirable) through cognitive training and the correction of mistaken value judgments.<sup>66</sup> Indeed, the empirical

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<sup>65</sup> Becker (1998), pp 18, 42

<sup>66</sup> Cognitive training and the correction of mistaken value judgments remain choiceworthy ends for Stoics nevertheless.

evidence from VM patients suggests that affective arousal is crucial for acting in accordance with one's considered judgments. Becker's ethical project is not built directly on the moral psychology of Posidonius but on the moral psychology suggested by the fullest consensus of modern scientific psychology. However, Becker points to Posidonius as an ancient Stoic whose moral psychology is in greater agreement with current models than Chrysippus'. The invalidation of Chrysippus' moral psychology does not, then, immediately entail the collapse of ancient Stoic moral psychology in general. At the very minimum, the greater congruity between modern psychological conclusions and the viable – that is, Posidonian – ancient Stoic moral psychology preserves a possible transition from the ancient Stoic ethical project to Becker's contemporary efforts. Nor does Chrysippus' mistaken moral psychology lead to a wholesale abandonment of his work as a resource for current efforts to revive Stoic ethics. As Becker phrases it:

It may be true that some ancient Stoics (notably Chrysippus) underestimated the extent to which emotion was a necessary component of psychological health and thus of virtue. But this is a matter of getting the facts straight, and surely all Stoics are committed to getting an adequate, accurate psychology as a basis for their normative account of good emotion. The things that Chrysippus said about the heart being the seat of consciousness – things ridiculed centuries later by Galen – are surely errors that Chrysippus himself would have wanted corrected. Not ridiculed, but corrected. And if such errors informed his normative judgments, surely he would not only have corrected his errors about physiology but also have made the necessary adjustments in his normative views.<sup>67</sup>

While Chrysippus located psychic function in the heart rather than the brain, so too did Posidonius. Becker's admonition here is noteworthy and reiterates that Posidonius' moral psychology is not supposed to be a better foundation than our modern scientific theories.

Finally, it might seem as though the hard moral doctrines of Stoicism—for instance, that the sage is happy even on the rack, or that the death of one's child is not genuinely bad—cannot be plausibly maintained on the basis of our modern moral psychology. It is true that some, like the invincible happiness of the sage, require some linguistic flexibility. Those familiar with the problems involved in trans-

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<sup>67</sup> Becker (2004), p 251

lating *eudaimonia* will certainly guess that the sage's happiness will end up being a great deal more complex than our colloquial understanding of that word would suggest, especially with its associations with pleasure. On Becker's account, the sage's happiness would consist in the exercise of her perfected agency (her virtue), which is shorthand for the exercise of practical reason, all-things-considered. Even under the tremendous duress of torture unto death, a sage is capable of continuing to exercise this faculty, and in doing so she makes her life as a whole into a virtuous and happy one. This may strike us as outlandish until we recall how familiar and accepted the notion is, even in popular culture.<sup>68</sup> Becker writes: "Sages suffer on the rack. They differ from the rest of us only in having virtuosic human abilities to resist the defeat of their agency, and to act with practical intelligence under conditions that would defeat the merely fit."<sup>69</sup> I contend that there is nothing here out of step with a modern moral psychology.

However, the Stoic claim that the death of one's child is not genuinely bad is likely to meet more resistance, since it seems to contravene the biological imperative to preserve one's offspring, and coincides with a more deeply held conviction, perhaps, than our belief that torture and happiness are mutually exclusive. A defense of this contentious Stoic claim requires a distinction among three elements of the attachments to objects (e.g., children) that humans form: strength, depth, and dissemination. The strength of an attachment indicates the lengths to which an agent will go to preserve the object of the attachment. The depth of an attachment indicates the extent to which an agent identifies him or herself with the object. Dissemination indicates the degree to which the full range of an agent's endeavors are associated with the object. Typically these elements of attachment are correlated—as an attachment's strength increases, its depth and dissemination usually will as well—but it is crucial to note that these

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<sup>68</sup> The 1995 film *Braveheart* depicts just such a scenario of successfully deployed agency at the limit of human endurance. My supposition is that no one is compelled to claim that such a feat must be written off as utterly outside the realm of possibility. Actual historical examples of human psychological endurance in similarly trying circumstances abound.

<sup>69</sup> Becker (1998), pp 147-148

elements of attachment are dissociable. Although they may be less common in our experience, instances of attachments that exhibit only some of these elements, such as a child's strong but shallow attachment to staying up past bedtime, illustrate the independence of these elements from one another. Furthermore, Becker observes that the value of Stoic training is precisely in calling us to focus on aspects of our agency such as our attachments and their strength, depth, and dissemination throughout our personalities. The exercise of virtue (i.e., agency, or practical reasoning, all-things-considered) in this context consists in an evaluation of the appropriateness of the attachment, in terms of these elements, to the object. The Stoic claim is not that attachments should not be formed but that they should, through the modulation of their elements, be calibrated to the transience or fragility of their objects.

In section 2.1 I briefly presented Becker's argument that virtue—as agency—is the only unconditional (or genuine) good. The corollary of this claim is that the only unconditionally (or genuinely) bad thing is vice, which for Becker would be a failure or breakdown of agency. So, just as the survival of one's child is not unconditionally good, the death of one's child is not unconditionally bad. If this argument is accepted, then, in conjunction with the above points regarding attachment, a case can be made for the viability of the Stoic claim that the death of one's child is not genuinely bad. In the absence of the restriction Stoicism places on the meaning of its terms, the claim that the death of one's child is not truly bad surely sounds callous if not morally depraved. However, the Stoic claim that the death of one's child is not bad is not the claim that the death of one's child should not cause emotional pain. Nor is it the claim that one should not allow oneself to become attached in any way to one's children (in fact, Stoic ethics holds the opposite). Rather, Stoic ethics claims that it is impermissible to allow the death of one's child to interfere with one's virtue (or agency):

We oppose unconditionally only one sort of attachment: the sort whose rupture makes us incapable of exercising our agency. That means we are very reluctant to endorse any attachment that is maximally strong, deep, and disseminated. It does not mean, however, that we endorse only weak, superficial attachments. On the contrary, strong and deep attachments can be so encapsulated (undisseminated) in our personalities that we can continue to exercise our agency despite their rupture. (One child is dead, and another

needs rescue. Parents who can rescue the living child despite the loss of the other have encapsulated attachments, nonetheless strong or deep—and we add virtuous—for being so.)<sup>70</sup>

Thus, a strong and deep attachment to one's child would seem to be a requirement for virtuous parenthood. Indeed, how else would one motivate oneself to make the sacrifices appropriate to virtuous parenthood? Likewise, the death of one's child would surely be painful, as the strength and depth of the attachment would seem to require. Nevertheless, a virtuous parent will have reflected on the essentially fragile nature of her child's life, and consequently she will prepare herself for the possible loss of her child by modifying her attachment so as to retain her agency in the event of such a loss. This claim remains distinctively Stoic in its insistence on virtue's status as the sole genuine good (Aristotelian ethics, by contrast, would consider the loss of one's child to constitute a genuinely bad thing), but the claim is also consistent with a modern moral psychology that rules out the plausibility of motivating virtuous action in the absence of affect and attachments.

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<sup>70</sup> Becker (1998), p 100

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