

Surprising Empirical Directions for Thomistic Moral Psychology: Social Information Processing and Aggression Research

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Abstract. One of the major contemporary challenges to Thomistic moral psychology is that it is incompatible with the most up-to-date psychological science. Here Thomistic psychology is in good company, targeted along with most virtue-ethical views by philosophical situationism, which uses replicated psychological studies to suggest that our behaviors are best explained by situational pressures rather than by stable traits (like virtues and vices). In this essay we explain how this body of psychological research poses a much deeper threat to Thomistic moral psychology in particular. For Thomistic moral psychology includes descriptive claims about causal connections between certain cognitive processes and behaviors, even independent of whether those processes emerge from habits like virtues. Psychological studies of correlations between these can provide evidence against those causal claims. We offer a new programmatic response to this deeper challenge: empirical studies are relevant only if they investigate behaviors under intentional descriptions, such that the correlations discovered are between cognition and what Aquinas calls human acts. Psychological research on aggression already emphasizes correlations between cognition and intentional behavior, or human acts, and so is positioned to shed light on how well Thomistic moral psychology fits with empirical data. Surprisingly, Aquinas's views have quite a lot in common with a leading

model of aggression, the social information processing (SIP) model. We close by suggesting how we might examine claims of Thomistic moral psychology from an empirical perspective further using research on social information processing and aggression.

I. Introduction

In the end of the 21st century, philosophers raised the possibility that our best psychological science provided evidence that deep-seated and traditional assumptions in moral philosophy were false. Famously, Gilbert Harman and John Doris argued for what is now known as Situationism: the view that human behavior is largely a function of the situational, external influences and not the product of "character," or the traditional virtues and vices.¹ Harman and Doris's arguments for Situationism sparked a lively and ongoing debate in mainstream moral philosophy (indeed, this debate is now its own cottage industry). More importantly, it has prompted moral philosophers to revisit and take seriously the question of where empirical investigation ends and philosophical investigation begins, and whether, and to what extent, empirical work in psychology can provide evidence for or against moral philosophical claims.

¹ Gilbert Harman, "Moral Philosophy meets Social Psychology: Virtue Ethics and the Fundamental Attribution Error," *Proceedings of the Aristotelian Society* 99 (1999): 315-331, John M. Doris, "Persons, Situations, and Virtue Ethics," *Noûs* 32 (1998): 504-530, John M. Doris, *Lack of Character: Personality and Moral Behavior* (Cambridge: Cambridge University Press, 2002).

The psychological studies cited by Harman, Doris, and other philosophers are meant to provide reasons for skepticism about folk and traditional philosophical claims about virtue. Thomistic moral psychology features claims that fall squarely within this target-- for instance, that we can acquire virtues like temperance and courage with the proper training and practice, or that Christian martyrs' behavior is explained by their courage. Thomistic moral psychology can also make use of standard philosophical defenses against Situationism, such as the argument that virtue is rare and the psychological data is consistent with this.

In this essay, however, we want to suggest first, that there is a more general empirical challenge to Thomistic moral psychology completely apart from its claims regarding the traditional virtues and vices. Thomistic moral psychology includes theses about the existence of certain cognitive capacities and the causal connection between cognitive processes and human behavior. To the extent that psychological studies reveal a lack of correlation between these cognitions or cognitive capacities and behavior, they unsettle claims about their causal connection. (For if there is a causal connection then we should expect, at the very least, evidence of statistical correlation.)

Secondly, we argue that the psychological studies most frequently cited in the philosophical literature do not attend to the relevant kind of human behavior to bear on Thomistic moral psychology. For the kind of behavior about which Thomistic moral psychology makes claims is exclusively intentional behavior-- what Aquinas calls human

actions, and elsewhere, the moral species of action. We suggest that psychological research on aggression, by contrast, does attend to this kind of behavior. Moreover, within social information processing models, psychological research on aggression investigates the correlation between intentional behavior and the very kinds of cognitive processes countenanced in Thomistic moral psychology. Thus, this empirical work on aggression offers a fruitful way to investigate the empirical chops of Thomistic moral psychology.

Our main argument about Thomistic moral psychology is straightforward. We can summarize it as follows:

1. Social psychological studies purport to show that behavior is not largely a function of character traits posited by (inter alia) Thomistic moral psychology.
2. According to Thomistic moral psychology, there are two kinds of human behavior—the natural and moral species.
3. The moral species of human behavior, but not the natural, is intentional and subject to moral evaluation.
4. Conclusions from social psychological studies rely on observation of subjects' behaviors in the natural species category.
5. Psychological research on aggression examines behavior in the moral species category.

6. Social Information Processing theory examines correlations between aggression-related behavior and many of the same cognitive processes and factors as Thomistic moral psychology.
7. Psychological studies of elements of Social Information Processing theory support a correlation between these cognitive processes and aggression-related behaviors.
8. Thomistic moral psychology can be tested using psychological findings on aggression.

II. Preliminaries

Out of the gate we need to explain what we mean when we say “Thomistic moral psychology.” In Aquinas’s works, we find a rich and complex picture of the capacities and activities of the human psyche, or what he calls “powers,” “operations,” and “acts” of the will and the intellect. Aquinas does not designate some particular domain of our psychology as “moral,” as though the cognitive capacities and activities involved in morally evaluable action and character are distinct from the capacities and activities at play in other domains of human life. So what could we possibly mean by “Thomistic moral psychology”?²

² Daniel De Haan makes a similar move with respect to perception and moral perception. See Daniel De Haan, “Moral Perception and the Function of the *Vis Cogitativa* in Thomas Aquinas’s Doctrine of Antecedent and Consequent Passions,” *Documenti e Studi Sulla Tradizione Filosofica Medievale* 25 (2014): 289-330.

Aquinas does have an account of what qualifies a behavior, behavioral pattern, or mental disposition as morally relevant. Just because a human performs a movement or has a trait doesn't mean it is susceptible to moral evaluation. Aquinas holds a teleological moral theory: being moral is a matter of pursuing and achieving the good. Like Aristotle (and unlike consequentialist teleologists) he holds that humans should pursue what is specifically good for humans-- the best thing achievable in action for our kind of creature. We can infer what the best thing achievable in action for humans is based on the best (or as Aristotle puts it, the most godlike) capacities we have. And Aquinas explains that these are the capacity to use our cognition to direct our desires or "appetite." While other creatures follow their appetites either without any cognition (as in the case of plants) or with cognition that is determined by external stimuli (as in the case of other animals), humans can do this, but they also have the ability to freely shape their actions, and downstream, their habits, by letting their cognitions inform their appetites. These capacities get taken up in the psychological activity of what Aquinas calls the "rational appetite" and the activities of the rational appetite he calls "willings" (*STI.II.1.2*). The human good consists in the proper use of our rational appetite, since this is the best good achievable to creatures of our kind (*STI.II.4.4*). And virtues, or morally good character, are just those dispositions that make excellent the human will, practical reason, and the relevant appetites.

Philippa Foot claims that for Aquinas, moral virtues are excellences of the rational appetite—that is, the will.³ This constitutes a strong reading of Aquinas on the connection between virtues and the will. But at the very least—that is, even on a weak reading, Aquinas maintains that the behaviors we can evaluate morally are just those that involve the will. Behaviors like digesting, reflexive bodily movements, even irrational perception, and being moved by force, don't register morally because they are not voluntary. They are neither a proper nor an improper use of our rational appetite or will; they do not display a use of the rational appetite at all! Such nonmoral behaviors are what Aquinas calls acts of humans (*actus humani*).

The behavior that issues from the higher-order cognition integrating with appetites are intentional actions, what Aquinas calls the human act (*actus humanus*). Every use of the rational appetite, or will, is morally evaluable-- morally good or bad-- insofar as it is better or worse with respect to helping us achieve the human good.⁴

Suppose, for example, Sergio trips on a busy sidewalk and bumps into a passerby. Sergio is a human. That his movement was a behavior of a human person isn't sufficient for us to think of Sergio's bumping into someone as morally good or bad. In fact, on Aquinas's framework, behavior, behavioral patterns, and dispositions have to be

³ Philippa Foot, *Virtues and Vices and other Essays in Moral Philosophy* (Oxford: Oxford University Press, 1978).

⁴ For an excellent and thorough treatment, see Joseph Pilsner, *the Specification of Human Action in Thomas Aquinas*, (Oxford: Oxford University Press, 2006), chapter 3.

in some way a product of the will in order to admit of moral characterizations like "good," "generous," "malicious," and so on. So if Sergio's motion completely bypasses his will, it simply is not the sort of behavior we can characterize appropriately using any moral concepts. It is an act of a human, but not, in Aquinas's sense, a human act.

Many of the cognitive capacities and activities involved in producing morally relevant action, or human acts, of course, figure in nonmoral cognition and behavior in Aquinas's framework. For instance, my perceptual capacity is in play when I walk into the nursery and smell dirty diapers, completely involuntarily (in fact, I would rather not experience that smell!). I employ this same capacity when intentionally cooking a delicious meal for a friend who needs cheering up.

Still, we can take a selective look at the cognitive powers and processes relevant to the production of human action to better understand how what goes on inside the head interacts with the environment to issue in what is morally relevant on a Thomistic framework. We propose, then, that Thomistic moral psychology be understood as the account of those cognitive capacities employed and cognitive activities that cause intentional human action. The label "moral psychology" in this context refers to a somewhat artificial category in that there are not distinctive moral cognitive abilities on Aquinas's view, but rather configurations of extant cognitive abilities which, when engaged with the appetite, get caught up in the moral life.

With these preliminaries in mind, we can turn to the family of empirical objections to which Thomistic moral psychology is vulnerable because of its descriptive claims about our behavior and the cognition that produces it.

III. The Situationist Challenge Studies

Thomistic moral psychology aims to depict accurately the cognitive processes and activities that produce human action. Contemporary psychology of course does not have precisely the same aim, since it investigates associations and correlations rather than causation. Yet the philosophical claims about causation stand to be corrected if psychological investigation gives us evidence that there is little to no correlation between what the Thomist labels a cause and its behavioral effect. In this section we'll review the most well-known challenge to broadly Aristotelian and Thomistic moral psychology-- the Situationist Challenge from social psychology. We describe a set of psychological studies that are supposed to support this challenge. This will tee us up for introducing the deeper and more serious threat to Thomistic moral psychology posed by the empirical studies we describe, a threat not defrayed by extant responses to the situationist challenge.

A now well-known empirical objection to virtue ethical views like the Thomistic one is this: validated, replicated studies in psychology appear to show that people's actions are better predicted by features of their situations, like whether the room smells like fresh-baked cookies, than by traditional virtues and vices. For instance, Hartshorne

and May tested dispositional honesty in children and found very little correlation between children's honest behavior across various situations.⁵ Psychological studies by Vernon, Hunt, and Mischel further supported the idea that the situation better predicted honest behavior than any personality factors.⁶ Fleeson explains, "so-called honest people frequently could (and did) act dishonestly, and so-called dishonest people could (and did) act honestly."⁷

Another study published by Darley and Batson, "From Jerusalem to Jericho," made a splash in moral philosophy almost three decades later, when John Doris, Gilbert Harman, and Maria Merritt integrated it into their arguments against Aristotelian virtue ethics.⁸ The experiment first took a personality survey of Princeton seminarians, then assigned them the task of giving a talk on the Biblical story of the Good Samaritan in a nearby building. To get to the building, the participants would need to pass through an

⁵ Mark A. May, Hugh Hartshorne, and Ruth E. Welty, "Personality and Character Tests," *Psychological Bulletin* 25 (1928): 422.

⁶ Philip E. Vernon, "Personality Assessment: A Critical Survey," *British Journal of Educational Studies* 13 (1964): 113. J. M. Hunt, "Traditional personality theory in the light of recent evidence," *American Scientist* 53 (1965): 80–96. Walter Mischel, *Personality and Assessment* (New York: Wiley, 1968).

⁷ William Fleeson, Michael Furr, Eranda Jayawickreme, Erik G. Helzer, Anselma G. Hartley, and Peter Meindl, "Personality Science and the Foundations of Character" in *Character: New Directions from Philosophy, Psychology, and Theology*, ed. Christian B. Miller, Michael Furr, Angela Knobel, and William Fleeson (Oxford: Oxford University Press, 2015), 41–71.

⁸ John M. Darley and Daniel C. Batson, "'From Jerusalem to Jericho': A Study of Situational and Dispositional Variables in Helping Behavior," *Journal of Personality and Social Psychology* 27 (1973): 100–108. John M. Doris, "Persons, Situations, and Virtue Ethics," *Noûs* 32 (1998): 504–530. Gilbert Harman, "Moral Philosophy meets Social Psychology: Virtue Ethics and the Fundamental Attribution Error," *Proceedings of the Aristotelian Society* 99 (1999): 315–331. Maria Merritt, "Virtue Ethics and Situationist Personality Psychology," *Ethical Theory and Moral Practice* 3 (2000): 365–383.

alleyway. But participants encountered in the alley a person "sitting slumped in a doorway, eyes closed, not moving. As the subject went by, the victim coughed twice and groaned, keeping his head down."⁹ Some participants were told they needed to hurry because they were already late. Of these only 10% stopped to help, whereas 63% in the "low hurry" situation stopped to help. Further, only one personality factor correlated at all to helping: those who scored high on "religion as a quest" were likely to offer more tentative help than those who scored low. The study has been used to illustrate that helping or compassionate behavior is more a product of situational features like whether one is in a hurry than about personality traits or even religious beliefs accounted for on the pretest surveys.

A set of experiments known as the moral hypocrisy studies were conducted by Daniel Batson and claimed to show the prevalence of "moral hypocrisy," defined as "motivation to appear moral yet still benefit oneself." This and other studies by Batson have proven extremely influential in philosophy, whatever their influence in psychology may have been.¹⁰ In a 1997 article, "In a Very Different Voice: Unmasking Moral

⁹ John M. Darley and Daniel C. Batson, "From Jerusalem to Jericho."

¹⁰ Daniel C. Batson, Diane Kobrynowicz, Jessica L. Dinnerstein, Hannah C. Kampf, and Angela D. Wilson, "In a Very Different Voice: Unmasking Moral Hypocrisy," *Journal of Personality and Social Psychology* 72 (1997): 1335-48. In fact, Batson, along with Walter Mischel and Stanley Millgram, is one of the most cited psychologists in moral philosophy, and in the virtue ethical and theoretic literature in particular. This is perhaps due to the moral hypocrisy studies being used as a primary example in the initial Situationist challenge by John Doris and Gilbert Harman, and then by authors of prominent responses to Doris and Harman, such as Gopal Sreenivasan, "Errors About Errors: Virtue Theory and Trait Attribution," *Mind* 111 (2002), 603-612; Rachana Kamtekar, "Situationism and Virtue Ethics on the Content of our Character," *Ethics* 114 (2004): 458-481; Christian B. Miller, *Moral Character: An Empirical Theory*,

Hypocrisy," Batson et al. claimed their experiments unsettled the assumption that people act on the basis of their moral beliefs or moral reasoning.¹¹ Subsequently philosophers and psychologists utilized the findings of these studies to criticize Aristotelian and Thomistic ideas about honesty as a reasonably attainable virtue on the basis of which many people act.¹²

There were several different experimental designs, but all had the following in common. First, all the participants took a questionnaire in which they rated on a Likert scale how well various perspectives fit their thinking when, for instance, "trying to decide what you should do in a social conflict situation." An example of a social conflict situation used was a friend who rarely attends class asking to borrow notes. They were then told that the subsequent parts of the study had been canceled, but they could instead participate in a separate study at the appointment time originally scheduled for

(Oxford: Oxford University Press, 2013), and Christian B. Miller, *Character and Moral Psychology*, (Oxford: Oxford University Press, 2014). Batson and many philosophers using his work assume that giving the reward away is morally good, keeping it is morally bad. That is, they equate altruistic behavior with moral behavior, and benefit to oneself with egoism. Neo-Aristotelians like Talbot Brewer and Julia Annas have challenged this assumption, rejecting the modern view of individual good as in opposition to the good of others on which it is predicated. See Talbot Brewer, *The Retrieval of Ethics*, (Oxford: Oxford University Press, 2009), and Julia Annas, *Intelligent Virtue*, (Oxford: Oxford University Press, 2011). For more recent discussion of the coin-flip moral hypocrisy studies in philosophy, see Christian Miller, *Moral Character*, Christian Miller, *Character and Moral Psychology*, Christian Miller, "Virtue Cultivation in Light of Situationism," in *Developing the Virtues: Integrating Perspectives*, eds. Julia Annas, Nancy Snow, and Darcia Narvaez (Oxford: Oxford University Press, 2016), 157-183, and Matt Stichter, *The Skillfulness of Virtue* (Cambridge: Cambridge University Press, 2018).

¹¹ Daniel C. Batson et al., "In a Very Different Voice."

¹² See Christian Miller, *Honesty: The Philosophy and Psychology of a Neglected Virtue* (Oxford: Oxford University Press, 2021).

this study. In the second appointment, participants were told they were one of two participants in a study, and that they have the option of assigning one of two kinds of tasks to themselves and the other participant, who will be told their task has been assigned at random. In one kind of task, the positive task consequences, participants answer questions and get a gift certificate to a store of their choice if they answer correctly; in the other, the neutral task consequence, participants answer questions and there are no rewards or punishments for answering correctly or incorrectly. The participant would assign one of each type of task to themselves and to the second participant.¹³ The participants then rated their feelings during the task and after the task, such as "proud" and "guilty."

In the first experimental setup, the participants were all given the choice of assignment and then took a questionnaire asking what they thought was the "most morally right way to assign the task consequences" and whether they thought the way they made the task assignment was morally right.¹⁴ Batson et al. noted 16 of the 20 participants assigned themselves the positive consequence and that only 1 of 16 who assigned themselves the task with the positive consequence said that assigning oneself that task was most morally right. They write, "the results were clear... moral motivation seemed rather weak."¹⁵ In the same paragraph they admit, "We cannot say, however,

¹³ Daniel C. Batson et al., "In a Very Different Voice," 1339.

¹⁴ Ibid.

¹⁵ Ibid., 1341.

whether obtaining self-benefits was the motive behind their action or simply an unintended consequence.”¹⁶ The researchers, as well as philosophers who have subsequently discussed this study, assume that assigning the positive consequence to others is altruistic and thus more moral than assigning the positive consequence to oneself. We’ll return to this in a later section.

The second experimental setup looked at what happened when participants were given explicit moral cues, namely, telling participants that “most people think the most fair way to assign the tasks is to give both participants an equal chance of being assigned the positive consequences task by, for example, flipping a coin” and then providing a coin. 10 flipped a coin, 10 did not. Here the researchers were interested in correlations between participants’ earlier reported perspectives on social conflict situations and their choice to flip; the “moral responsibility” perspective and a focus on relationship-care most predicted the choice to flip. A “justice perspective” and ascribing responsibility to others did not reliably predict the choice to flip. Participants were again asked what they perceived was the most morally right way to assign the tasks. Of the 10 who flipped the coin, 9 still assigned themselves the positive consequences task. Of the 10 who did not flip the coin to assign, 9 assigned themselves the positive consequences task, but only 1 of these 9 said it was the most morally right way to assign the task. The

¹⁶ Ibid.

researchers concluded that “this pattern indicated the presence of moral hypocrisy.”¹⁷ Further, an iteration of the study in which experimental arm participants saw themselves in a mirror as they assigned the task, and control arm participants did not, showed a positive correlation between the presence of the mirror and assigning the positive consequences task to the other. This indicated to Batson and his team that the situational influence of the mirror played a more serious role in determining behavior than did a moral character trait.

Batson and his team took the moral action to be either (a) flipping the coin and following the results to assign the tasks or (b) assigning the positive consequences task to the other person. They supported this understanding of moral action using the high frequency of participants reporting that these were the most morally right ways to assign the tasks. They concluded that most people are motivated to pursue self-interest while appearing moral. Further, they argued that their experiments provided evidence that the goal of being moral, or upholding a moral principle, could not be an ultimate motivation but merely an instrumental goal for the ultimate purpose of benefiting oneself.¹⁸

Philosophers such as Doris and Harman use the coin flipping studies, as well as the Milgram authority experiments and Hartshorne and May honesty studies, to make

¹⁷ Ibid., 1342.

¹⁸ Ibid., 1347.

the case for a negative claim: the traditional virtues and vices are not in fact widespread. Building on this and the studies that appear to show correlation between situational influence and behavior (such as the mirror iteration of the moral hypocrisy studies), they further argued for the Situationism: human behavior is largely a product of situational influence, not largely a product of personality or character traits. The combination of arguments for the negative claim and Situationism became known as "the Situationist Challenge."

Defenders of the traditional virtues have offered compelling rejoinders to the Situationist Challenge of which the Thomist can avail herself. For instance, she might accept the negative claim, even the Situationist claim, but argue for the Rarity Thesis: virtues are rare-- so rare that we cannot expect that most peoples' actions can be predicted by the presence of virtues.¹⁹ This even accommodates the data that might lead someone to adopt the Situationist claim, by arguing that most people do not have the character traits, virtues, that would predict stable or reliable behavior.

IV. The Minimal Empirical Adequacy Challenge for Thomistic Moral Psychology

Even if the Thomist can dodge the situationist bullet using the Rarity Thesis or another strategy furnished by virtue ethicists, the theory remains vulnerable to deeper and more pervasive empirical threats regarding its claims independent of those about the virtues and vices. Thomistic moral psychology rests on descriptive claims about how

¹⁹ Rachana Kamtekar, "Situationism and Virtue Ethics on the Content of our Character."

human behaviors are produced in the first place, whether those behaviors end up being reliable or predictable in such a way as to evidence traits. Are the kinds of replicated, validated psychological studies we just described compatible with or plausibly supportive of such claims? We'll call this the Minimal Empirical Adequacy Challenge. Thomists should be worried not only with respect to jeopardizing descriptive claims in Thomistic theory of cognition but also with respect to the normative views about virtue and virtuous action that presuppose certain of these descriptive claims. There is a myriad of ways that scientific evidence might impinge on aspects of Thomistic psychology, but for present purposes, we will highlight just a few claims that render Thomistic moral psychology particularly vulnerable to empirical challenge.

First, recall Aquinas's claim that humans differ from the other animals on the basis of our capacity to be the source of our own behavior-- a human "moves itself toward the end" (*STI-II* 1.2). We supposedly do this by freely fixing our attention on and then intending an end instead of being presented with an end either by some external stimulus, as in the case of plants, or by some cognition over which we have no control, as in the case of what Aquinas calls "brute animals" (*ibid*). This is a descriptive claim about what distinguishes us psychologically from other living things:

Human Differentia Claim: Humans have rational appetite, which consists partly in the cognitive ability to direct one's attention to an end for which one acts.

This descriptive claim features centrally in the normative account of the human good. Remember that any creature's good is the best thing achievable for its kind, and we identify the best thing achievable for our kind as the proper activity of the highest capacity we have. Thus our identification of rational appetite, or will, as a capacity we actually have is critical to our identification of the human good as the proper activity of the rational appetite.

The Human Differentia Claim has the potential to be unsettled by studies in cognitive science, psychology, or neuroscience. For instance, if studies on cognition provided strong evidence that our attention is a strict function of external stimuli, this would cast doubt on the idea that we have the ability to direct our attention freely. We might conclude instead that we are more cognitively like the other animals than Thomistic moral psychology suggests.

Second, Thomistic moral psychology is committed to the view that some non-negligible subset of human behaviors are human actions-- actions generated by the rational appetite. These actions turn out to be morally evaluable while other behaviors are not even if no humans actually perform morally good or morally bad actions routinely enough to form the habits of mind we call virtues and vices. The connection between certain elements of cognition and human action include what Aquinas calls the "apprehension of the end" – that is, a human being must cognize her end as a goal for her in order for her subsequent behavior to count as goal-directed or intentional.

End Apprehension Claim: Human action is preceded by cognition of an end conceived of as a goal of the action.

When other animals act in goal-directed ways without cognizing their end as a goal, or when humans do this, the behavior resulting is not a product of the rational appetite, and thus not morally evaluable.

Empirical study of cognition prior to action could prove inconsistent with the End Apprehension Claim in a way that would be problematic for Thomistic moral psychology. If studies were to measure people's explicit goals-- that is, the ends they conceive of as such-- and their behavior and find no correlation between these, that would be bad news for the End Apprehension Claim.²⁰

Third, Aquinas's depiction of the cognition preceding human action includes what he technically designates "intention" (*intentio*). Intention in this context means the choosing of a means for achieving an end.

Intention Claim: Human action involves a cognitive choice of the means for achieving the selected end or goal.

On the Thomistic view, the human who engages her rational appetite or will in acting does so "not without the intention of the end" (*STI.II 1.2*). Without the intention,

²⁰ We have limited ourselves here to the swath of psychological studies philosophers draw on in the situationism debate. But recent work on psychology and free will would also bear on the End Apprehension Claim. Thanks to Brandon Dahm for pointing this out to us.

the person cannot be willed to actually bring about the end through her behavior even if she has cognized an end as a goal (*STI.II 12.1*).

Again, this claim is subject to empirical scrutiny. We might gain evidence against the Intention Claim via studies showing that we do not conceptualize the means of bringing about actions, given that we are completely inarticulate about the means even when we can articulate the goal for which we act. Or psychological studies might show that a person's selection of an option for bringing about her goal does not correlate to her behavior. In that case we would have reason to doubt that her selection of the option, her choice or intention, plays a causal role in her behavior.

The general lesson to be learned is this. Even if the Situationist Challenge can be avoided, Thomistic moral psychology faces a broader empirical challenge in virtue of its positing certain cognitive capacities and activities as causes of observable behavior:

Minimal Empirical Adequacy Challenge: a philosophical moral psychology featuring claims about the cognitive causes of moral behavior (good or bad) must be shown to be consistent with psychological findings regarding associations between cognitive processes and behaviors or patterns of action.²¹

²¹ This challenge parallels Owen Flanagan's Principle of Minimal Psychological Realism, but does not pronounce constraints on a moral theory's ideals. See Owen Flanagan, *Varieties of Moral Personality: Ethics and Psychological Realism* (Cambridge, MA: Harvard University Press, 1991), 32. Our principle here simply states that a philosophical psychology's claims about the behavior that gets assessed by those ideals (or other regulative statements) must be up to snuff, empirically.

Put simply, Thomistic moral psychology doesn't only posit certain habits of mind, the traditional virtues and vices, as explanatory of behaviors, such that they should be able to predict behavior across situations and time. The account also asserts the existence of cognitive capacities and processes that produce one-off behaviors and more narrow behavioral patterns. To the extent that psychology and cognitive science can identify correlations and an absence of correlations between discrete aspects of cognition and these behaviors, they can offer strong empirical evidence for or against certain of these Thomistic moral psychological claims.

The descriptive aspects of Thomistic moral psychology are not the only aspects susceptible to criticism based on psychological and cognitive scientific data. This account of our moral psychology makes normative claims, too, based on the given picture of our psyche. It presents certain habits or cognitive traits as ideals-- the acquired virtues-- on the assumption that these are attainable in the course of human life on earth. It claims that certain act types are morally good and others morally bad given their being characteristic outputs of virtues or vices, respectively.

Both virtues and virtuous actions are moral ideals meant to be realistically attainable, not purely regulative ideals. This is because of the Thomist's commitment to species-relative goodness (e.g. that what it is best for us to be like and do is to perfect and exercise capacities distinctive of our kind of creature). Whatever cognitive scientists

and psychologists find about what we are capable of has direct bearing on the way we conceptualize which traits and act types are good for human beings.

Moreover, the normative claims of Thomistic moral psychology must conform to what Owen Flanagan calls the Principle of Minimal Psychological Realism: "When constructing a ...moral ideal, make sure the character, decision processing, and behavior prescribed are possible, or are perceived to be possible, for creatures like us."²²

Psychological studies might provide evidence that we are unable to develop certain good habits or avoid falling into bad ones. And this threatens to betray that the virtues posited by Thomistic moral psychology are not sufficiently human to be traits we should aspire to attain. Conversely, psychological studies might provide no evidence at all that suggests we have the ability to engage in certain cognitive processes that produce the kind of human actions for which we bear moral responsibility.

Thomistic moral psychology in the modern era, then, bears a certain burden of proof. The defender of this picture of our moral psychology and action needs to be able to show at least that it is compatible, as a causal theory, with what contemporary psychology finds, as a theory of association and correlation. And certainly, we would do even better to show it positively compatible with empirical evidence about how what

²² Owen Flanagan, *Varieties of Moral Personality*," 32

goes on in the head might look like and how it is associated with certain patterns of behavior.

V. Does Psychology Study Human Action?

Our main argument attempts to show that assessing intentional behavior, such as aggression, and exploring patterns of behavior over time, may be a more appropriate method than contrived psychological experiments, to examine major claims of Thomistic moral psychology outside of experimental conditions, such as of aggression. To do so, we need to illustrate first where some psychological experiments operate on an understanding of human behavior orthogonal to the Thomistic understanding such that its data does not bear on claims the Thomist makes about human action. We also need to explain why research on behavior pattern development and changes over time, such as that of aggression, does bear on such tenets as the Human Differentia Claim, End-Apprehension Claim, and Intention Claim. We undertake this joint task in the present section. We will argue that within aggression research there is a robust tradition of thinking of human behavior more akin to Thomistic “human action” than the more capacious category of behavior that includes acts of humans.

Consider the (in)famous Darley and Batson Princeton Seminary study discussed above. Helping behavior was coded into one of the following categories:

“0=failed to notice victim as in need

1=perceived need but did not offer aid

2=did not stop but helped indirectly (told the aide on their arrival)

3=stopped and asked if victim needed help

4=after stopping, insisted on taking victim inside and then left him.

5=refused to leave victim, or insisted on taking him somewhere."²³

The psychologists found no significant correlation between either religious personality traits or beliefs. Noticeably absent from the behavior codes are the goals and intentions of the participants. Additionally, the participants' perspective on their situation-- what they noticed in their situation-- is not considered. In codes 0 and 1, the researcher observing infers what the subject is attending to regarding the victim being in need.

The correlation studied here is between these observed behaviors and cognitive elements such as religious character traits and beliefs about a certain task-- delivering a short presentation. What is not studied is a correlation between what, on the Thomistic picture, is properly called human action, the action that is morally evaluable because it is a product of the will. We don't know whether some participants saw the victims' need as an opportunity to help, or as similar to the Samaritan's, whereas others did not. We don't know if some participants asked the victims if they needed help for the sake of alleviating guilt whereas others did so with the explicit goal of helping them in mind. We

²³ John M. Darley and Daniel C. Batson, "From Jerusalem to Jericho," 100.

can hardly infer any of this from the observational descriptions of the participants' behavior.

On the Thomistic view, there are two levels of description of behavior, and only one level aligns with the morally evaluable kind of action-- human action. The first kind of description is the "natural kind" (*species naturalis*). This is the description a third-party observer would give without assuming anything about what's in the agent's head-- her beliefs, intentions, or desires. The other kind of description is the "moral kind" (*species moralis*).²⁴

The moral description is the description fixed largely by what is in the agent's head.²⁵ Here we need to be careful to follow Aquinas in circumscribing which mental activities can determine the moral description of an action. Some mental processes can lead to behaviors without the person's agency being sufficiently involved to give us a proper moral description of her action. We often act on the basis of what Aquinas terms the sensible appetite—desires (passions) whose object is presented by our sense perception or imagination. Routine actions put this sort of action on display. For example, Julia might be so accustomed to driving herself to the parking lot of her office in the morning that she ends up there on a day she is scheduled to go to the doctor.

²⁴ David Gallagher, "Aquinas on Moral Action: Interior and Exterior Acts," *Proceedings of the American Catholic Philosophical Association* 64 (1990): 118-129.

²⁵ Here it's important to not be misled by the semantic change in the term "moral" between Aquinas's time and now; Aquinas simply means, by this, the kind of action specific to humans as creatures that can reason and act voluntarily.

Her actions are not mindless physical reflexes, but neither are they responsive to cognitions Aquinas calls particular reason, which would have directed her in the opposite direction. Her actions are instead informed by input from her senses—e.g. seeing the sign for 3rd street where she’s accustomed to turn left—and this sensory input directs her just like sensory input directs other animals.²⁶

In contrast to mental processes that give rise to routine actions, another set of cognitive processes generate full-blooded intentional action, and these processes help us identify the moral description of the action. Aquinas maintains that our desires or passions can be responsive to our reason and, as a result, when we act on such desires we are acting by choice. Reason supplies what Daniel De Haan calls an aspectual description to what is sensed or imagined—like the visual of the lefthand turn lane to 3rd street being seen as to be avoided, or to be pursued. “Whenever the operations of the sensitive powers are informed and integrated into the acts of reason and will, there occurs not just an act of seeing, but a voluntary act of seeing.”²⁷ It is this voluntariness that renders the subsequent action intentional and so morally evaluable.

To get a sense for the difference between a moral and natural description of human behavior, consider an example. Suppose I see my neighbor in his front yard grab

²⁶ Julia Annas, “Virtue, Character, and Disposition,” in *Intelligent Virtue* (Oxford: Oxford University Press, 2011).

²⁷ Daniel De Haan, “Moral Perception and the Function of the *Vis Cogitativa* in Thomas Aquinas’s Doctrine of Antecedent and Consequent Passions,” 304.

his kid and throw him to the ground. The kid yelps. The natural description of his act is something like "tackling someone." But what is he up to? Stating the correct description of his intentional act requires that I know what he is up to; is he punishing the child? Asserting his dominance? Play wrestling? Running football drills? I might make some inferences about the moral description of his action— the intentional action— based on what I know about my neighbor and his child. If I know the child plays on a football team or is a wrestler, and that my neighbor has typically behaved very kindly to his children, I might infer that they are playing a game, and if an injury occurred it was an accident. That is, I'm unlikely to infer in such a case that what my neighbor was doing was injuring his child, on the intentional description, even if an injury results from what he is doing. If his action really is "playing football with his child," that must be because playing is the end he has in mind as his goal and tackling the child is what he intends or chooses as part of satisfying that end.

It is fair to say that the psychological studies typically used to challenge Thomistic and more broadly Aristotelian moral psychology focus on the natural species of action. This is problematic because, at best, it is ambiguous whether such behaviors are morally relevant-- it may be the case that the same behavior allows for more than one moral description.²⁸ At worst, the behavior does not admit of any moral description because it

²⁸ The problem here runs parallel to a problem pointed out by early critics of situationism aiming to defend the existence of virtues. In Gopal Sreenivasan, "Character and Consistency: Still More Errors,"

is not the product of the will, does not involve the kind of cognition that makes it free and thus something that moves us closer or further from our final end as humans.

Happily, this focus on behavior systematically divorced from goals and intentions is not a feature of all areas of contemporary psychology. Within psychological research on aggression, for example, there is significant work seeking to identify (inter alia) associations between cognitive processes and behaviors that fall under moral descriptions-- behaviors that are defined by what is intended or by a goal the person has in mind.

In what follows, we will focus on the psychological study of aggression. This area of research highlights as the relevant behavior the very kinds of actions that on the Thomistic view count as morally evaluable-- intentional actions. Aggression is defined as the intentional use of force or power to threaten to cause or to cause harm to another.

²⁹ Consider two cases where the behavior admits of the same natural description:

Keepaway: Aya, Hassan, and Laith are playing keepaway with a ball and Laith is in the middle. Aya aims the ball at Hassan but Laith moves between them and the ball hits him in the face.

Mind 117 (2008): 603-612, Sreenivasan argues that the psychological studies situationists use to back their claims are not even about the right sorts of traits because they look at the wrong sort of consistency.

²⁹ Center for Disease Control and Prevention, "Preventing Youth Violence," 2019.
<https://www.cdc.gov/violenceprevention/pdf/yv-factsheet508.pdf>

Hit: Daniel and Jose are playing keepaway with Lena's backpack. Daniel gets frustrated with Lana and throws the backpack at her face, hitting her instead of tossing it to Jose.

In research on aggression, the former does not qualify as an instance of aggressive behavior but the latter does. The researchers include Daniel's and Aya's goals in the description of the behavior they wish to study; in Keepaway, Aya's goal is getting the ball to Hassan by throwing it past Laith (the intention), whereas in Hit, Daniel's goal is intimidating Lena by hitting her with the backpack.

Thomistic moral psychology provides different moral descriptions of the actions in Keepaway and Hit respectively, though they have the same natural description. What is interesting and distinctive about this area of developmental psychology from a philosophical perspective is that it explicitly studies behaviors under their moral descriptions, rather than just natural descriptions.

Aggression is typically defined in the empirical literature as behavior that is intended to cause harm or discomfort, or the intentional use of force or power that causes or has the potential to cause harm.³⁰ It is an umbrella category that ranges from behavior that causes minimal or temporary harm (e.g., pushing someone) to severe

³⁰ Jaana Juvonen and Sandra Graham, "Preface," in *Peer Harassment in School: The Plight of the Vulnerable and Victimized* (New York: The Guilford Press, 2001), xiii-xvi. Alan E. Kazdin, "Conceptualizing the Challenge of Reducing Interpersonal Violence," *Psychology of Violence* 1 (2011): 166-187, <http://doi.org/10.1037/a0022990>.

violence (e.g., killing someone). Related to youth aggression, peer-targeted aggression is typically categorized as physical (also called direct or overt when combined with verbal aggression), verbal, relational (also called social or indirect), cyber (also called electronic or Internet), or dating.³¹ However, all aggression is united in the empirical literature in that it is operationally defined, broadly, as intentional behaviors with the end of causing harm. Measures of aggression include items that either assess intention or items assessing behaviors that have fairly obvious malintent. For example, it is fairly obvious that threatening someone with a weapon, an item included on a range of youth self-reported measures of aggression, has the intention of causing harm.³² Similarly, calling someone “mean” names clearly indicates the intent of meanness. (This is measured on the verbal aggression subscale by whether the participant yelled at someone or called them mean names.)

Aggression researchers recognize that in contrast, some behaviors have an unclear end. Specifically, simply identifying the behavior without intent can lead to a

³¹ Noel A Card, Brian D. Stucky, Gita M. Sawalani, and Todd D. Little, " Direct and Indirect Aggression During Childhood and Adolescence: A Meta-Analytic Review of Gender Differences, Intercorrelations, and Relations to Maladjustment," *Child Development* 79 (2008): 1185-1229. Elizabeth A. Gony, Kevin S. Sutherland, Albert D. Farrell, Terri N. Sullivan, and Sarah T. Doyle, "Measuring teacher implementation in delivery of a bullying prevention program: The impact of instructional and procedural adherence and competence on student responsiveness," *Prevention science* 16 (2015): 440-450. Krista Mehari and Albert D. Farrell, "Where does Cyberbullying Fit? A Comparison of Competing Models of Adolescent Aggression," *Psychology of Violence* 8 (2016): 31-42, <https://doi.org/10.1037/vio0000081>.

³² Albert D. Farrell, Elizabeth A. Gony, Terri N. Sullivan, and Erin L. Thompson. "Evaluation of the Problem Behavior Frequency Scale–Teacher Report Form for assessing behavior in a sample of urban adolescents," *Psychological assessment* 30 (2018): 1277.

lack of distinction between playful teasing vs. verbal or cyber aggression, roughhousing vs. physical aggression, carelessness or self-absorption vs. relational aggression, and even flirting vs. dating aggression. For example, a teen might throw an object at another teen to flirt or play with them, or they might throw an object at someone out of anger or to hurt that person. In those cases, measure developers try to specify in the item that the end, intent, or goal is to cause harm. Using the Problem Behavior Frequency Scales (PBFS) as an example, an item on the physical aggression subscale clarifies this, "thrown something at someone to hurt them."³³ Similarly, relational aggression can include deliberately excluding someone from a group in order to cause harm. However, friend groups form naturally based on interest and similarities, so the absence of a person in a friend group does not imply aggression. Thus, one relational aggression item on the PBFS specifies, "Not let someone be in your group anymore because you were mad at them."³⁴ Along the same lines, teasing could be playful and friendly, or it could be intended to cause harm. To address this, a verbal aggression item indicates, "Teased someone to make them angry."³⁵

Now contrast this way of defining aggressive behaviors with the methods employed in psychological studies used to cast doubt on philosophical claims about

³³ Ibid.

³⁴ Ibid.

³⁵ Ibid.

moral behavior and character. These studies investigate associations between behaviors at the level of natural descriptions and cognition. In Batson's moral hypocrisy studies, the behavior in question was assigning the positive consequences task to oneself or to another, or using a coin flip to assign.³⁶ These are natural descriptions of behaviors. Batson attempts to read into these behaviors intentions such as being moral or appearing moral using other measures. In fact, it is assumed that assigning positive consequences tasks to others is moral. But what is being studied primarily is not the behaviors only under such intentional descriptions-- participants doing what they considered morally suboptimal, or doing what they take to be most beneficial to themselves at cost to another participant. Rather they issue conclusions about correlations between "moral behavior" described naturally, as either flipping the coin and following its assignment or assigning the other participant the positive consequences task.

Let's imagine a possible moral description on the Thomistic view consistent with observed participant behavior under natural descriptions. Suppose Emma is participating in the study because she owes her roommate for a utility bill and needs some extra money. Combining the money she will earn for participating and the \$30 gift card she can pay her roommate back in full. So Emma chooses to assign herself the

³⁶ Daniel C. Batson, Diane Kobrynowicz, Jessica L. Dinnerstein, Hannah C. Kampf, and Angela D. Wilson, "In a Very Different Voice."

positive consequences task instead of the anonymous other participant in order to get the gift card and pay her roommate for the utility bill. Perhaps Emma also self-reported having a justice perspective about social conflict situations. In this case, does Emma perform an “immoral action” from the Thomistic perspective? We think not. Given what she is attending to in the situation, namely the debt owed to her roommate, and what Emma is not attending to, namely, possible need of the anonymous participant, it does not seem she is acting against any moral principle. Perhaps in the abstract, Emma even agrees that it is best to flip a coin, but here and now she thinks her debt to her roommate makes it more important to get the money than the other participant, who doesn’t expect to get the gift card anyway.

The moral hypocrisy studies don’t threaten the claims regarding behavior that are central to Thomistic moral psychology. The studies did not ask participants what their goals were in assigning the tasks. The researchers inferred participant motivation from their prior self reports about how “moral” they thought various choices would be, but of course, we have no idea how the participants were thinking about moral rightness and wrongness. Would they consider Ari’s assigning to the positive consequences task to herself morally right, for instance, or morally wrong even though done for the sake of doing something else morally right like paying her roommate? Or, suppose the participant thought assigning the positive consequences task to someone else was most morally right, but that assigning it to themselves was morally okay. Again, here, it would

be quite difficult to infer from their prior self report whether the participant had a moral goal in mind and whether their choice was a product of that goal. In sum, the data of the moral hypocrisy studies does not ultimately bear on either the End Apprehension Claim or the Intention Claim, even though the researchers claimed to show that people's moral reasoning comes apart from their behavior. The kind of behavior that comes apart from moral reasoning, according to these studies, is not the kind of behavior (or behavior under the sort of description) at issue in these claims of Thomistic moral psychology.

By contrast, developmental psychological studies that investigate associations between aggression and cognitive capacities and processes do bear on such claims of Thomistic moral psychology. For aggression so described does fall under the purview of human action-- the sort of behavior that certain cognitive activities and capacities are supposed to cause, and thus we should expect at the very least correlation between them.

VI. Cognitive Processes in Aquinas and Social Information Processing Theory

So far, we have argued that developmental psychological work on aggression focuses on behaviors under the sort of descriptions that are relevant to central claims of Thomistic moral psychology. We also argued that the psychological work most often cited in literature on neo-Aristotelian moral psychology and ethics focuses on behavior

under the wrong sort of description. Where does this put us with respect to the Minimal Empirical Adequacy Challenge?

Recall that according to the Challenge, empirical work can give us evidence regarding moral psychology by demonstrating the presence or absence of correlations where moral psychology posits causation. For instance, the Thomistic End Apprehension Claim says that certain behaviors-- human actions—are partly caused by the agent identifying some end or goal in such action. For psychological studies to cast doubt on such a claim, they must show either absence of or negative correlation between the cognitive process of end apprehension and the behavior that qualifies as human action. In general, for empirical work to be germane to the empirical adequacy of moral psychological claims, it must meet three conditions. The work must (1) study precisely the sort of behaviors in question on the moral psychological account, (2) study the sort of cognitive processes and capacities posited by the moral psychological account, and (3) identify either a correlation or absence of correlation between these cognitive processes and the behaviors a moral psychological account claims the processes generate.

Our argument thus far shows that the studies ubiquitous in the philosophical literature on virtue do not meet the first condition for Thomistic moral psychology and consequently cannot alone provide evidence for or against claims of that moral

psychology. We have also argued that aggression research at least meets this first condition.

For aggression research to provide full-blooded evidence for or against Thomistic moral psychology, however, it must also meet the second and third conditions. Our aim in this section is to show that it does.

We will argue that social information processing (SIP) theory used by aggression researchers models cognitive processes and patterns related to attention in decision-making similar to those Thomistic moral psychology posits. Empirical correlations between these cognitive processes and behaviors like aggression, then, are precisely the sorts of correlations (or lack thereof) that could provide evidence for (or against) the Human Differentia, End-Apprehension, and Intention claims, *inter alia*.

Let's first examine social information processing models on their own terms. SIP models identify and label the process through which adolescents make the decision to aggress. One prominent SIP model is the one created by Crick and Dodge.³⁷ The occurrence of aggression is explained as the outcome of a continuous social exchange between adolescents and their environments. They identified six cognitive steps in the decision to aggress. In each stage, adolescents integrate environmental and internal stimuli with cognition from "databases"—memory, acquired rules, and social schemas

³⁷ Nicki R. Crick and Kenneth A. Dodge, "A review and reformulation of social information-processing mechanisms in children's social adjustment," *Psychological Bulletin*, 115 (1994): 74–101. <https://doi.org/10.1037/0033-2909.115.1.74>

and knowledge.³⁸ In the SIP model, the person is an active agent who processes information with their existing knowledge, beliefs, and values to make decisions about behavioral choices.

Adolescents first encode cues, both in the environment (such as people laughing) and internally (e.g., physiological arousal such as rapid heartbeat). Then adolescents interpret those cues, making intent attributions and evaluating past performance and what the interaction means for them and the other person or people. Adolescents clarify their goals, generate possible responses, evaluate and select a response, and enact that response.³⁹ Goals clarification and response evaluation are particularly relevant to Thomistic moral psychology. Goals are typically measured by self-report of general or situation-specific social goals. Response evaluation includes multiple factors and processes (e.g., such as self-efficacy to engage in the response; perception of the likely outcomes of the response), but most relevant to Thomistic moral psychology, it includes normative beliefs about aggressive behaviors. There is a large body of research supporting the relation between social goals and aggressive behavior as well as normative beliefs about aggression and aggressive behavior among youth.

³⁸ Ibid.

³⁹ Ibid.

Many leading researchers identified aggression as a technique adolescents used to achieve social goals.⁴⁰ The relation of aggression to social goals has been examined across a range of research. Social goals have been broadly classified as prosocial (goals related to developing or maintaining relationships, helping others, or promoting fairness) or antisocial (goals that benefit oneself by harming, taking resources away from, or diminishing others). Aggression can be used as a tool to promote antisocial goals, such as by establishing dominance and status within a group and creating boundaries between people within and outside a group. For example, intra-group aggression decreases after hierarchies are established within a group.⁴¹ In addition, adolescents may use aggression to maintain order by punishing those who do not conform to group norms.⁴² Antagonistic interactions directed at people outside the group, such as sarcasm and ridicule, draws attention to people who are different and inferior, which promote a sense of identity by indicating whom one is not.⁴³

This conception of social goals suggests an entry point for thinking of the connection to Thomistic moral psychology. Social goals so conceived are plausibly

⁴⁰ Albert Bandura, Claudio Barbaranelli, Gian V. Caprara, and Concetta Pastorelli "Mechanisms of Moral Disengagement in the Exercise of Moral Agency," *Journal of Personality and Social Psychology* 71 (1996): 364-374. Terrie E. Moffit, "Adolescent-limited and life-course persistent antisocial behavior: A developmental taxonomy," *Psychological Review* 100 (1993): 674-701.

⁴¹ Leslie A. Gavin and Wyndol Furman, "Age Differences in Adolescents' Perceptions of Their Peer Groups," *Developmental Psychology* 25 (1989): 827-834.

⁴² Ibid.

⁴³ Jeffrey Arnett, *Adolescence and Emerging Adulthood: A Cultural Approach*, 4th Edition (Boston: Prentice Hall, 2010).

instances of what Thomistic moral psychology describes as ends in human action. Recall that for Aquinas, the end of an action is what gives it its species (and “form,” he says). It is just in virtue of the fact that we can formulate ends cognitively that we can act freely, from rational appetite instead of mere appetite -- this is the Human Differentia claim. Aquinas argues that when we perceive features of a situation, two things can happen. Just like nonhuman animals, we size up these features and apprehend them under particular descriptions, like “this lamb” and the description “alive.”⁴⁴ Nonhuman animals can even encode certain action goals in the way they perceive a situation; a wolf might see “this lamb” as “edible” or “to be eaten,” and the lamb might see “this wolf” as “to be fled” or “to be feared.” Unlike nonhuman animals, though, Aquinas thinks humans have the capacity to make a rational judgment about these perceptions; such a rational judgment consists in reason evaluating some apprehended action goal as “suitable” or “unsuitable,” “good” or “evil,” “beneficial” or “detrimental.”⁴⁵ The person’s goals on this level specify what human act she is performing—that is, the moral species of her action.

What we see in aggression research is a use of an agent’s social goal to specify the kind of behavior at play. For instance, aggression researchers will categorize Aya’s action in Keepaway as not an instance of aggression because of the presence of her

⁴⁴ Daniel De Haan, “Moral Perception and the Function of the *Vis Cogitativa* in Thomas Aquinas’s Doctrine of Antecedent and Consequent Passions,” *Documenti e Studi Sulla Tradizione Filosofica Medievale* 25 (2014): 289-330, at 313.

⁴⁵ *Ibid.*, 314.

prosocial goals of playing a game and promoting friendship with Laith and absence of antisocial goals like harming him. In Hit, aggression researchers and Thomistic moral psychologists alike will characterize Daniel's behavior as aggression precisely because of the presence of the end, or social goal, of harming Lana. In other words, the cognitive element Thomistic moral psychology uses to specify a human action is functionally the same element SIP theory and aggression research uses to specify aggressive behaviors.

This functional equivalence of social goals and ends does not by itself support the Human Differentia claim but it is significant. It illustrates one way in which aggression research assumes as does the Thomist, that aggressive behaviors differ from accidental behaviors due to the presence of a special cognitive process (one that is absent in the accidental case) and that this cognitive process is a kind of goal-orientation embedded in the choice of action unique to humans.

Even more suggestive is the way aggression researchers measure social goals. If the instruments by which aggression researchers measure social goals are getting at the thing conceptualized by the SIP model, then quite plausibly this provides positive evidence that an element of rational appetite, namely apprehension of ends qua ends, does occur. Findings on prosocial and antisocial goals may lend serious support to the End Apprehension claim.

The harmony between Thomistic moral psychology's claims about cognition and SIP theory goes deeper. SIP theory holds that a person brings to deliberation a

database: dispositions, beliefs, and schemas that inflect but do not determine how she views her situation and response options. So too, on Thomistic moral psychology. Aquinas claims that our patterns of attention and dispositions can structure how objects appear to us through the imagination, but these do not singularly determine what we do.⁴⁶ Aquinas says, "Humans, just as much as brute animals, are induced [to act] through favors and deterrents [lit. whips], or commands and prohibitions—but in diverse ways. For it is in the power of humans to choose or flee, by the judgment of reason, the very same things similarly represented, whether they are commanded and prohibited, or beneficial or deterring. But in brutes there is a natural judgment determined so that what is proposed or occurs in one way, will be received or avoided in the same way," (De Veritate 24.2 ad 7). In other words, for Aquinas, what he calls "imagination" is a pattern-sensitive cognitive ability that presents objects in the environment to the agent as, for instance, threatening or appealing. The difference between human adults, at least, and nonhuman animals is that we can see someone as a potential threat without action on that information immediately following, since we can wait on reason to endorse the apprehension or bring to mind alternative ways of apprehending the other person. In other words, imagination-- how we categorize objects in the environment -- influences,

⁴⁶ Therese Scarpelli Cory, "Aquinas and Freud: Imagination's Role in Unconscious Motivation," (unpublished manuscript, 2019), typescript. Daniel De Haan, "Moral Perception and the Function of the *Vis Cogitativa*."

but does not determine, what happens next, just as with schemas and dispositions on SIP theory.

In both theories, what comes next is active agency. Once environmental information has been encoded cognitively, the agent does the work of interpreting that information. Thomistic moral psychology countenances a cognitive process of “the understanding” whereby the agent focuses her attention. Some scholars explain this activity as consciously construing the situation.⁴⁷ Suppose that Lena is hit by Daniel’s backpack, for instance, and encodes Daniel’s behavior as a physical harm. She can then actively focus her attention on the harm and perception of Daniel as a threat or on the appearance that the harm was an accident and discount the perception of Daniel as a threat. Here she is interpreting the situation, according to SIP theory, and engaging her rational capacity on Thomistic moral psychology. As she then generates response options, she weighs them; Aquinas very clearly carves out this kind of cognitive activity in his discussion of intentional actions, when one elects a means to achieve an end, which we can think of as functionally equivalent to response options in light of a goal. Aquinas claims that this settling on something as a means to an end is the activity of the will-- appetite moving the agent to an action on the basis of something presented to it by reason. Thus it seems to us that the steps outlined as precursors to behavior on the SIP model are cognitive processes Thomistic moral psychology is particularly interested

⁴⁷ Therese Scarpelli Cory, “Aquinas and Freud,” 8.

in. For they are the precise processes that involve the interplay of appetite and reason that make an action the product of rational appetite-- the will.

VII. Correlation Data and Claims of Thomistic Moral Psychology

At this point, we have argued that aggression research focuses on both the sort of behavior that qualifies as human action and the sort of cognitive processes Thomistic moral psychology takes to be relevant to the production of human action. We are now in a position to consider the Minimal Empirical Adequacy of Thomistic moral psychology. Does aggression research show there are correlations where Thomistic moral psychology says there is causation? Does it show there is not the kind of correlation that the causal story of Thomistic moral psychology would predict?

A body of research has consistently supported a relation between social goals and perpetration of aggression. In a meta-analytic review of this work, Samson and colleagues identified that prosocial goals were associated with lower rates of aggressive behavior, and antisocial goals were associated with higher rates of aggressive behavior in youth.⁴⁸ For example, one longitudinal study found that youth who prioritized revenge goals were more likely to engage in aggression in the future than youth who did not.⁴⁹ Similarly, in a study of ethnically diverse adolescents transitioning

⁴⁸ Jennifer E. Samson, Tiina Ojanen, Alexandra Hollo, "Social Goals and Youth Aggression: Meta-Analysis of Prosocial and Antisocial Goals," *Social Development* 21 (2012): 645-666.

⁴⁹ Kristina L McDonald, John E Lochman, "Predictors and Outcomes Associated with Trajectories of Revenge Goals From Fourth Grade Through Seventh Grade," *Journal of Abnormal Child Psychology* 40 (2012): 225-236, <https://doi.org/10.1007/s10802-011-9560-0>.

to middle school, social dominance goals were predictive of aggression across gender and ethnicity.⁵⁰

Further, normative beliefs about aggression and antisocial behavior are related to physical, verbal, and relational aggression.⁵¹ Normative beliefs represent injunctive norms, or individuals' perceptions of what is acceptable or appropriate behavior.⁵² Of particular relevance, normative beliefs may vary based on the situation, which makes adolescents' decisions about choosing to aggress very nuanced. For example, adolescents may believe that it is unacceptable to fight in general, but that it is an appropriate response if others insult their family, or if they believe others will continue to harass them unless they fight.⁵³ (e.g., Farrell et al., 2015). To further explore this,

⁵⁰ Sarah M. Kiefer, Allison M. Ryan, "Striving for Social Dominance Over Peers: The Implications for Academic Adjustment During Early Adolescence," *Journal of Educational Psychology* 100 (2008): 417-428, <https://doi.org/10.1037/0022-0663.100.2.417>.

⁵¹ Zopito A. Marini, Andrew V. Dane, Sandra L. Bosacki, "Direct and Indirect Bully-Victims: Differential Psychosocial Risk Factors Associated With Adolescents Involved in Bullying and Victimization," *Aggressive Behavior: Official Journal of the International Society for Research on Aggression* 32 (2006): 551-569. James K. Nash, Jong Sung Kim, "Patterns of Change over Time in Beliefs Legitimizing Aggression in Adolescents and Young Adults: Risk Trajectories and Their Relationship with Serious Aggression," *Social Work Research* 31 (2007): 231-240. Katy Tapper and Michael J. Boulton, "Sex Differences in Levels of Physical, Verbal, and Indirect Aggression Amongst Primary School Children and Their Associations with Beliefs about Aggression," *Official Journal of the International Society for Research on Aggression* 30 (2004): 123-145. Nicole E. Werner and Charisse L. Nixon, "Normative Beliefs and Relational Aggression: An Investigation of the Cognitive Bases of Adolescent Aggressive Behavior," *Journal of Youth and Adolescence* 34 (2005): 229-243.

⁵² See, for instance, Rowell L. Huesmann & Nancy G. Guerra, "Children's normative beliefs about aggression and aggressive behavior," *Journal of Personality and Social Psychology*, 72(1997): 408–419. <https://doi.org/10.1037/0022-3514.72.2.408>

⁵³ Albert D. Farrell, Krista R. Mehari, Alison M. Kramer-Kuhn, Sally A. Mays, and Terri N. Sullivan. "A qualitative analysis of factors influencing middle school students' use of skills taught by a violence prevention curriculum," *Journal of School Psychology* 53 (2015): 179-194.

Farrell and colleagues developed and validated a measure of normative beliefs about aggression that assessed not only global beliefs about aggression but also beliefs about instrumental aggression, reactive aggression, and the idea that fighting is sometimes necessary. They found support for four distinct sets of beliefs: beliefs against aggression (e.g., "Fighting...is a bad thing to do"); beliefs supporting instrumental aggression (unprovoked aggression perpetration with the goal of self-gain; e.g., "it's okay to fight someone if they have something you want"); beliefs supporting reactive aggression (aggression in response to provocation or anger; e.g., "It's okay to push someone if you're mad"); and beliefs that fighting is sometimes necessary (at times, the best available option is to fight; e.g., "If you don't fight some kids, they'll just keep picking on you").⁵⁴ Each set of beliefs showed a different pattern of correlations with self-reported and teacher-reported aggression. For example, the belief that fighting is sometimes necessary was unrelated to teacher ratings of aggression, suggesting that believing that fighting is sometimes necessary may not predict adolescents' actual use of aggression. In contrast, adolescents who had normative beliefs supporting proactive aggression had higher teacher reports of aggressive behavior. These findings suggest first that adolescent goals, or the ends they have in mind, might vary while observed behavior looks similar (as in Hit and Keepaway). Second, normative beliefs about action types

⁵⁴ Ibid.

actually may predict performance of those action types, especially when the type of action coded for is intentional.

There is evidence that moral reasoning is also closely tied to aggression, as suggested by both SIP model and theory of cognitive development. Interestingly, when discussing aggressive behavior, aggressive adolescents pointed to rules and consequences as reasons to avoid engaging in those behaviors, whereas nonaggressive adolescents pointed to the wrongness of the act itself. This may indicate that aggressive adolescents consider aggression to violate societal rules but not necessarily moral standards, increasing their likelihood of aggressing if they believe they can avoid negative outcomes.⁵⁵

This brief overview of a large literature in developmental psychology suggests that research on aggression has much to offer Thomistic moral psychology in terms of a direction to look for empirical testing. Programmatically, doing this well would require carefully analyzing individual measures-- measures of social goals, measures of the cognitions involved in the six steps of social information processing, and measures of behaviors. We take ourselves to have offered an example of how this might be done in our discussion of normative beliefs about aggression measure. And to the extent psychological work in other areas is focused on behaviors under their moral

⁵⁵ Robin J. Harvey, Janet Fletcher, and Davina J. French, "Social reasoning: A source of influence on aggression," *Clinical Psychology Review* 21 (2001): 447-469. Marie S. Tisak, "Domains of Social Reasoning and Beyond," *Annals of Child Development* 11 (1995): 95-130.

descriptions, and cognitive processes like the ones countenanced by Thomistic moral psychology as causally efficacious, similar work could be fruitful.

VIII. Conclusion

In this essay we have attempted to do three things. The first is to argue that there is an empirical challenge that Thomistic moral psychology faces that goes beyond the standard situationist challenge. Because Thomistic moral psychology makes claims about human action and cognition independently of its claims about virtues and vices, it should not conflict with research on correlation where it claims causation. We called this the Minimal Empirical Adequacy Challenge.

Second, we argued that many of the most famous psychological studies discussed in moral philosophy do not bear on Thomistic moral psychological claims. This is because they do not investigate behavior under the right sort of description to do so. Insofar as these studies code behavior on natural description instead of moral, or intentional, descriptions, they do not offer us data about correlations between human actions and cognition, but rather acts of humans and cognition. But Thomistic moral psychology is not interested in acts of humans broadly speaking-- it is interested in human actions.

Third, we suggested that aggression research does focus on both the behavioral and the cognitive elements about which Thomistic moral psychology makes claims. Thus it can offer us some empirical evidence that bears on Thomistic moral

psychology insofar as it tells us there are or are not correlations between cognitions and the behaviors Thomistic moral psychology says those cognitions cause. Thus, aggression research is relevant to figuring out whether Thomistic moral psychology meets the Minimal Empirical Adequacy Challenge, and suggestive in providing some evidence that it does for a domain of social action.