TRUST IN THE DIGITAL AGE: FRIENDSHIP, JUSTICE, AND THE GOOD LIFE

An Undergraduate Research Scholars Thesis

by

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TABLE OF CONTENTS

ABSTRACT

Trust in the Digital Age: Friendship, Justice, and the Good Life

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A more complex definition of trust is required to better understand the Aristotelian virtues of friendship and justice, especially in the digital age. Within this argument, I develop and make use of two distinct notions, *specific trust* and *broad trust*, that together describe all potential trust scenarios. An agent exhibits *specific trust* when counting on a certain individual, and in cases of *broad trust*, an agent is trusting in a conglomerate of unknown individuals. What results from a decision to trust, in either dimension, may lead to stable cooperation among participants or lead to the evolution of norms and institutions to rebalance incentive structures. This model of trust was developed by James A. Coleman and later coined by Philip J. Nickel as the Explanatory Constraint Theory (ECT) of trust. When applied to the Aristotelian virtues, ECT yields valuable insight into the formation of friendship and just political action. I argue that *specific trust* and *broad trust* can be understood as the antecedent conditions for action, resulting in cooperation among participants (friendship) or rebalanced incentives (justice). As the techno-mediated mode of communication becomes more prevalent, the way individuals trust changes. I claim that ECT is effective in pinpointing the origin of these changes. If new technology allows for efficiency within the "good life", the ECT model explains why it fails in doing so, to the extent that the "good life" entails a sense of trust and depends on friendship and justice.

INTRODUCTION

A more complex definition of trust is required to better understand the Aristotelian virtues of friendship and justice, especially in the digital age. This argument develops and makes use of two distinct notions, *specific trust* and *broad trust*, that together describe potential trust scenarios. An agent exhibits *specific trust* when counting on a certain individual, and in cases of *broad trust*, an agent is trusting in a conglomerate of unknown individuals. In either case, the agent makes use of a trusting disposition that consists of a mental state that takes into consideration (a) unfulfilled needs or interests and (b) opportunities for reliance to produce a decision in light of them. A decision to trust is made by weighing expected gain against potential loss. If an agent decides to trust, one of two outcomes is likely to occur: a cultivation of stable cooperation when needs are met, or, when left unfulfilled, norms and institutions evolve to help balance incentive structures to increase fulfillment in similar trust scenarios.

The model of trust utilized in this argument was developed by sociologist James S. Coleman[1] and later coined by philosopher Philip J. Nickel as the Explanatory Constraint Theory (ECT) of trust.[2] When applied to the Aristotelian virtues of friendship and justice, ECT yields valuable insight into the formation of friendships and just political action. I argue that *specific trust* and *broad trust* act as antecedent conditions for certain types of friendships and some forms of justice, resulting in either the cooperation among participants (conditions for friendship) or rebalanced incentive structures (conditions for justice) within the political dimension. The

[1] James S. Coleman, *Foundations of Social Theory* (Cambridge, MA.: Harvard University Press, 1990).
[2] Philip J. Nickel, "Being Pragmatic about Trust" In *The Philosophy of Trust*, eds. Paul Faulkner and Thomas Simpson (Oxford: Oxford University Press, 2017).

argument made throughout this paper holds when participants decide to trust under certain conditions, and the argument does not hold when these conditions are absent. For example, trust in oneself is not explained by the ECT model. Likewise, the conditions that I claim lead to justice are only formed as a result of trust, yet justice may take form by mediation from outside the trust scenarios.

As techno-mediated modes of communication become more prevalent in the digital age, the ways individuals trust change. I also defend the claim that the ECT model is effective in explaining the conditions that affect trust differently in the digital age when compared to the predigital age. If new technology allows for access to the "good life" and efficiency within the "good life," the ECT model can be used to explain why it fails in doing so, to the extent that the "good life" entails a sense of trust and depends on friendship and justice.

Section I, "Trust," develops thorough explanations of *specific trust* and *broad trust*, and provides examples. Next, I consider whether trustworthiness is a virtue, ultimately following Jones's argument that excludes it from being considered so. When trustworthiness is not considered a virtue, trust cannot be explained merely on behalf of those trusted. A more complex understanding of trust contains explanations for trustors as well as those trusted. To achieve this, Nickel's ECT model is used to examine conditions that make up trust scenarios. The result is a detailed explanation of trust when trust lends to the antecedent conditions for the Aristotelian virtues of friendship and justice.

Section II, "Trust and Friendship," starts by surveying Aristotle's account of friendship in book's VIII and IX of *Nicomachean Ethics*.[3] The claim that friendship may result from

[3] Aristotle, *Nicomachean Ethics,* trans. Joe Sachs (Newbury, MA: Focus Publishing, 2002).

successful cases of *specific trust* is supported by John M. Cooper's "shared activities" thesis.[4] When shared activities involve cooperation among individuals, certain types of friendships may form. ECT conditions explain how evolved cooperation among *specific trust* participants result from successful trust. Lastly, the ECT model will be used to compare how the successful output conditions of trust function in cases of *specific trust,* before and after the widespread use of the internet (t_0 and t_1, respectively). This will yield insight into ways that friendships are potentially formed as a result of successful trust in t_0, and in t_1.

Section III, "Trust and Justice," provides insight as to how the techno-mediated mode of communication affects trust and justice in the digital age. This section starts from Aristotle's notion of justice and incorporates output conditions from failed trust scenarios that arise in cases of both *specific trust* and *broad trust* to provide an explanation for justice in t_0 and t_1. Because successful trust may lead to certain types of friendships that entail justice, novel insights are learned by focusing exclusively on what results from failed trust. With ECT support, this section defends the claim that the techno-mediated mode of communication in t_1 causes skewed risked assessments that result from too many or too few opportunities for reliance. To support this claim, an evaluation of failed trust in t_0 will be compared to the corresponding output condition in t_1. What results from this comparison is the ability to pinpoint the input condition that bears the disproportionate amount of reliance in t_1.

[4]John M. Cooper, "Friendship and the Good in Aristotle," *The Philosophical Review* 86, no. 3 (July 1977): 290–315.

SECTION I

TRUST

Given its centrality to our social lives and the pursuit of the "good life," trust has received inadequate attention from scholars. This section aims to address this shortcoming by (1) developing and defining the notions *specific trust* and *broad trust*, (2) determining whether trustworthiness should be considered a virtue, and (3) providing a detailed description of Nickel's ECT to support the claim that *specific trust* and *broad trust* are antecedent conditions for certain types of friendship and justice.

Throughout this argument, the terms "trust(s)," "trusting," and "trustworthiness" are used as follows. "Trust" (as a noun) means a mental state that an agent uses to decide whether to rely on another (or others), while "trusts" (as a verb) is used to mean the act of choosing to rely on another to fulfill needs or interests. While engaged in a trusting situation, a "trusting" agent has made the choice to rely on another or others, but does not know whether that choice was well made because the consequent of that choice has yet to be revealed; a "trusting" individual does not imply a general disposition that a person has with respect to their reliance on others. Lastly, "trustworthy" or "trustworthiness" is used to mean a quality of a person (or system of people) who are believed to be deserving of trust. In all of these forms, trust only refers to human interactions: objects cannot be trusted, but are merely relied on because they cannot be concerned with the interests of the trustor. For this reason, objects are reliable and not trustworthy.

Specific Trust and Broad Trust

In this section I develop two notions, *specific trust* and *broad trust*. The purpose for this development is to organize the varying conditions of trust scenarios so that when comparing trust in t_0 to trust in t_1, claims are more readily refuted or validated.

An agent exhibits *specific trust* when relying on a single, known individual for a particular circumstance. A three-component model of *specific trust* looks like this: in circumstance R, person A trusts person B directly. Rather than trusting in an unknown conglomerate, person A trusts in an individual, B, whose identity is known to her. If Danielle trusts Billy to feed her dog while she is out of town, she is directing her trust toward a single person that she knows. If Billy's actions inform Danielle that she wrongly trusted him, Danielle has no trouble discerning whom she wrongly trusted. Because cases of *specific trust* account for known participants, what results from these scenarios allows for personalized responses.[5]

In unpacking the components of *specific trust*, where A trusts in B for circumstance R, two-thirds of the facts are known—it is understood that A is exhibiting trusting behavior and that B is considered potentially trustworthy—and what is left is to better understand the role circumstance R plays in the scenario. In this three-component model of *specific trust*, circumstance R acts as a qualifier for B's ability to follow through with whatever A has entrusted to B. To better understand the significance of this qualifier, compare these two statements:

(1) When it comes to deciding where to eat, Susie trusts Dan's advice.

(2) Susie trusts Dan.

[5] "What results" will soon be described in terms of output conditions of ECT, and the extent to which the output conditions inform a trustor's response.

Comparing these two phrases addresses the role that circumstance R plays in *specific trust*. In (1), Susie trusts Dan insofar as the constraints outlined by circumstance R. What follows is that when it comes to actions outside of circumstance R, one cannot say whether Susie trusts Dan. In (2), however, there is no third component constraining Susie's trust to a given circumstance. More generally, in (2), Susie trusts Dan. Whereas in (1), she may trust Dan's advice on places to eat but not trust him to watch her kids for the weekend, yet in (2) Susie trusts Dan's for all things, which includes watching her kids for the weekend. Breaking down the structure of the three-component model of *specific trust* proves useful when determining whether trustworthiness ought to be considered a virtue.

An agent exhibits *broad trust* when she extends her trust to encompass an unknown conglomerate of individuals. For example, when Mycah trusts that the lightbulb she just purchased will illuminate after being installed, Mycah is exhibiting a kind of trust that is not directed to any specific person. Instead, Mycah trusts that the manufacturers created a bulb that functions in accordance with how the bulb was marketed, she trusts the shipping company and personnel who handled the bulb, and she trusts the store personnel. The key point is that because Mycah is trusting in a group of unknown people, if it were to be the case that she wrongly trusted, Mycah would have a difficult time determining who or what she should not have trusted.

Some cases of *broad trust* are unapparent, and include reading the news or purchasing anything online. When a person buys a newspaper with the intention to gain knowledge of current events, they are trusting many individuals involved with the newspaper's production. They are trusting that the newspaper's owner is running a company that aims to present facts about the word, they are trusting in the writers to accurately present current events with words, they are trusting in the editors for deciding which current events are newsworthy and which

ought to be excluded, and they are trusting in the newspaper's delivery carriers to deliver the paper just as it was printed and sold.

When purchasing an item online, trusting is similar to Mycah's lightbulb example, yet with more unknown individuals. When a person purchases something online they trust that the computer network is secure (i.e., they trust in the providers and security personnel), they trust that the party they are purchasing from is who they appear to be, and they are trusting in every individual involved with the transport of said item. Most of the trust exhibited today is *broad trust*, and often serves as the background for *specific trust*.

Together, *specific trust* and *broad trust* exhaust all scenarios that entail an individual's trust. *Broad trust* is often seen as the background for cases of *specific trust*. As I drive down the freeway, I trust specifically in those around me, but in the broad sense, I trust the car manufacturers, I trust those who designed and constructed the freeway, I trust those who passed legislation that determined the speed limit, and I trust drivers that I am visually unaware of yet know exist. Knowing the distinction between *specific trust* and *broad trust* is the first step in understanding the extent to which trust affects friendship and justice. Because the difference between *specific trust* and *broad trust* refers to qualities of those trusted (known or unknown), not just those deciding to trust, the idea of trustworthiness is of interest.

Trustworthiness as a Virtue

Trustworthiness, "a quality of a person who is believed to be deserving of trust" seems to be a virtue insofar as it can be construed as having both necessary components, a disposition and an act. An argument that considers trustworthiness a virtue refers to an individual's disposition to take care of things that others trust to them. However, for an individual to be thought as deserving of trust, another individual must be involved to do the determining, and the argument

against trustworthiness as a virtue makes evident that situations may arise that require those trusted to exhibit untrustworthiness.

Arguing that trustworthiness should be considered a virtue, Nancy Nyquist Potter suggests that trustworthiness is a character trait that virtuous people possess.[6] Potter then labels "full trustworthiness" trustworthiness that is not specific to certain relationships, and argues that "full trustworthiness" is a disposition to be trustworthy toward everyone. An agent who possesses the disposition that Potter considers "fully trustworthy" "can be counted on, as a matter of the sort of person he or she is, to take care of those things that others entrust to one, and whose ways of caring are neither excessive or deficient." [7] An example of Potter's "full trustworthiness" looks similar to line 2 of the Susie and Dan example insofar as the example is not constrained by the identity of the trustor or the qualifying third component. Potter's definition of "full trustworthiness", on first reading, seems to have the conditions necessary to be considered a virtue. Because Potter includes the clause "and whose ways of caring are neither excessive or deficient," attention is drawn to see what those vices are and if the vices align with Potter's claim that trustworthiness is a virtue.

The best argument against trustworthiness being considered a virtue comes from Jones. Jones suggests that when talking about cultivating trustworthiness, most people often have the three-component model of *specific trust* in mind (e.g., the trustworthiness of a doctor in the context of medical procedure), yet the trustworthiness necessary for virtue requires one to be generally trustworthy beyond the constraints of a particular circumstance.[8] For Jones,

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[6] Nancy Nyquist Potter, *How Can I Be Trusted? A Virtue Theory of Trustworthiness*, (Lanham, MA: Rowman & Littlefield, 2002).
[7] Potter, *How Can I Be Trusted*? 16.
[8] Karen Jones, "Trustworthiness," *Ethics: An International Journal of Social, Political, and Legal Philosophy* 123, no. 1 (October 2012): 61–85.

trustworthiness within the three-component model falls short of the broader disposition required to be considered a character virtue. Because trustworthiness within the three-component model of *specific trust* is ruled out, Jones argues for a two-component model similar to Susie trusts Dan. Jones calls this type of trustworthiness "rich trustworthiness," which is similar to Potter's "full trustworthiness" to the extent that it less constrained. It is only under the two-component model of "rich trustworthiness" that Jones considers trustworthiness a viable candidate for virtue-ship.

Jones claims that to properly distinguish trustworthiness as a character trait that is separate from similar character traits that are considered virtues (e.g., justice and honesty), we ought to better understand the nature of trustworthiness. To support her claim, Jones ask us to consider four propositions:

(P1) We can be required by justice to tell a lie.

(P2) We can be required by justice to let down someone who is counting on us.

(P3) We can be required by honesty to tell a lie.

(P4) We can be required by trustworthiness to let down someone who is counting on us.[9]

These four propositions clarify what might otherwise be confusingly similar notions. Jones' argument shows that while justice and honesty act similar to how justice and trustworthiness act, they are fundamentally different. To show this, she asks us to look at (P1) and (P2) first. In (P1) and (P2), justice is the requisite virtue for the action of lying and the action of letting down someone, respectively. With this reasoning, a lie told correctly in the name of justice is permissible, just as letting someone down in the name of justice is permissible.

However, considering (P3) and (P4), Jones correctly identifies how (P4) makes sense in a way that (P3) does not. To make this distinction, Jones points out that the reason for being honest

[9] Jones, "Trustworthiness," 82.

is because "it is the truth," and honesty acts alone to respect the truth. To reiterate this point, Jones claims that the reason for being honest is independent from the consideration of others just as the work of honesty is similarly independent in finding the most truthful thing to say. This justification differs from trustworthiness, which is determined by the expectations of others. The reason for being trustworthy may then read, "because someone is counting on me," which means trustworthiness depends on another person. When more than one person count on an individual for things that cannot be mutually realized, a noticeable problem occurs, one that excludes trustworthiness from being a virtue. If trustworthiness were a virtue, agents may be required to be untrustworthy when a case arises that requires an agent to be trustworthy to one person and untrustworthy to another. The dilemma would require the agent to be untrustworthy to one of the two trustors. To conclude her argument, Jones asserts that because a virtuous agent cannot be required to exhibit a vice, trustworthiness cannot be a virtue.

According to this account, the nature of trustworthiness depends on the expectations of others which, in turn, may create conflicting demands. These conflicting demands, when needed to be mutually realize, cannot be. Thus, there exists a situation that may require an agent to be untrustworthy. With this understanding in place, I subscribe to Jones' reasoning and agree that trustworthiness should not be considered a virtue. If trustworthiness is not a virtue because it depends on the considerations of others, the role trust plays in living the "good life" may be better understood by incorporating a model that begins from the trustor's perspective.

The Explanatory Constraint Theory

Philip J. Nickel's Explanatory Constraint Theory is concerned primarily with the explanatory role of trust in human interaction.[10] According to Nickel, trust should:

[10] Nickel, "Being Pragmatic about Trust," 197.

A. be explained as the outcome of central concerns or interests of the relevant actors, and

B. explain the emergence and sustenance of cooperative practices between actors.

To show this, Nickel introduces a model that is composed of input conditions and output conditions. The ECT relies on the work of one of the foremost advocates of this view on trust, sociologist James S. Coleman. In Coleman's view, trust is simply a disposition to rely on another person in order to satisfy substantial needs or interests, so that the expected gain justifies potential losses. Here, trust is explained in terms of needs of individuals combined with opportunities that reliance on others can provide in fulfilling those needs. Nickel explains that in Coleman's view, the trusting disposition consists of a mental state that takes these factors into consideration and produces a decision in light of them.

Nickel outlines the two input conditions for trust, which are (i) unfulfilled needs or interests and (ii) opportunities for reliance (Figure 1). ECT emphasizes the strategic rationality of individuals to explain why trusting practices emerge with the conjunction of input conditions (i) and (ii). In this model, if an agent weighs her potential loss against her expected net gain and determines that the opportunity for reliance is in her favor, she should trust the other agent to help fulfill her needs or interests (these factors make up what I call a risk assessment). When she trusts, the consequent from her decision bifurcates into output conditions. If her interests are sufficiently fulfilled by the individual she trusted, the successful output condition (i') is obtained. If she thinks that her interests are insufficiently met, output condition (ii') is labeled a failure. What follows from (i') is the evolution of stable cooperation between the two agents. Insofar as the trustor is satisfied with this account, this model explains why she may be more likely to trust in the trusted individual again, should similar input conditions arise. On the other hand, if (ii') is the result of her decision, the theory explains that evolved norms and behaviors may help balance

incentives so that successful trust may be had in future scenarios, or to help avoid scenarios that involve similar input conditions.

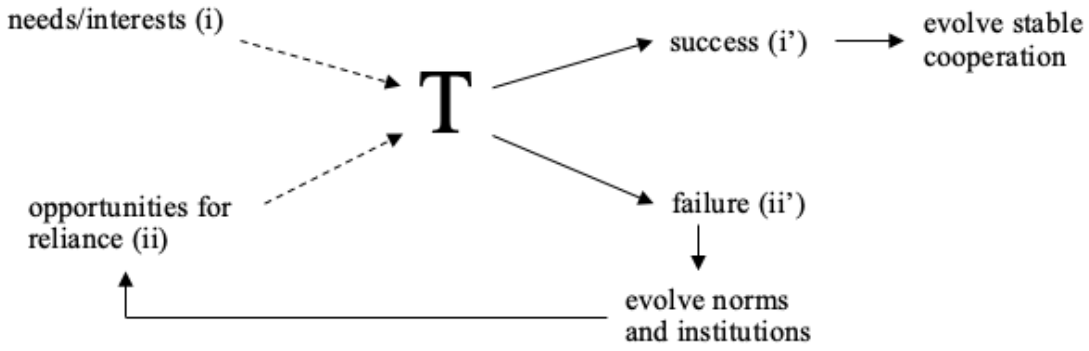

Figure 1. Nickel's ECT

The explanatory role Nickel assigns to trust deepens the understanding of potential cooperation among agents involved. It even goes so far as to explain how failed trust may require a rebalancing of incentive structures so that future trust scenarios may produce a more desirable outcome or be avoided all together.

In this section, I have explained *specific trust* and *broad trust* in terms that, when combined, serve as backdrop conditions for all trust scenarios. When trustors decide to trust, those they trust are thought to be trustworthy (within that circumstance). Because trustworthiness depends on the consideration of trustors, I hold that trustworthiness should not be considered a virtue, and argue for a more complex model that explains trust on behalf of trustors and those trusted. Nickel's ECT model adequately includes both participants, illustrates necessary conditions for trust, and explains what may result from decisions to trust. By introducing the ECT model, the role that trust plays with respect to certain types of friendship and justice is more evident.

SECTION II

TRUST AND FRIENDSHIP

The purpose of this section is to (1) explain Aristotle's notion of friendship, (2) show that Cooper's "shared activities" thesis supports my claim that successful trust lends to the formation of friendship, and (3) apply Nickel's ECT model to examples of specific trust in t_0 and t_1. The application will yield an enhanced understanding of friendship that can then be explained in terms of cooperation and shared activities.

When describing the types of friends, Aristotle claims that because these people differ, so to do their characters and therefore the kinds of love and kinds of friendships will differ.[11] For Aristotle, there are three "species" or types of friendship that form according to the types of good one loves about them. They are friendships of utility, pleasure, and virtue.

Friendships of utility are formulated and characterized by goods received by its participants. An example of a friendship of utility consists of A (who does not have a vehicle) wanting to be friends with B because B owns a vehicle (although B has yet to receive her license to drive), and B wants to be friends with A because A is old enough to drive. If A and B both want to participate in activities that require a vehicle, they may form this friendship for the individual utility it produces for each of its participants. For an individual participant, the good received is characterized by its utility.

Friendships characterized by pleasure are like utility friendships in that they produce good for each of its constituents individually, but differ in that the product, pleasure, does not rely on usefulness. In the pleasure friendship, A and B may be friends because of the mere

[11] Aristotle, *Nicomachean Ethics*, 1156a1–20.

enjoyment A and B feel while participating in the friendship. Put another way, pleasure friendships are good insofar as both participants experience (feel) good participating in it. No other criteria are required to fulfill the conditions for a pleasure friendship. For the individual, experiencing good for its own sake is enough to constitute friendship.

A virtuous friend is characterized by goodwill, wishes "for good things for one another, not being unaware of it."[12] What constitutes a virtuous friendship is goods received, experienced, and reciprocated. In a friendship of utility, participation is solely formed on the usefulness of the friendships, and in friendships of pleasure they are characterized by the pleasure experienced by its participants. The virtuous friendship combines these two characterizations and adds another, justice. If A is friends with B, then A is not friends with B to merely receive or experience good, but to participate in the reciprocal nature that the friendship affords. A can be said to sympathize with B's lack of utility or pleasure and will rectify this inequity with the understanding that A will do the same if the roles reverse. For the individual, in the case of virtuous friendship, it can be said that goods are received, experienced, and reciprocated for the sake of the friendship.

The three "species" of friendship detailed in *Nicomachean Ethics* are not mutually exclusive. Because relationships are often nuanced with varying motivations, and because truly virtuous people are rare, friendships are often categorized as a combination of pleasure and utility. This is not to say that they remain in these categories. For Aristotle, social behavior is thought to be habituated and nurtured through experience and practice. As friends come to orient themselves within the social behaviors of each other, they learn to be virtuous and become virtuous toward one another.[13]

[12] Aristotle, *Nicomachean Ethics*, 1156a5–10.
[13] Aristotle, *Nicomachean Ethics*, 1155a1–30.

Describing it as necessary for life,[14] Aristotle claims that no one would choose to live without friends, despite having wealth or being poor and despite being old or young. Then he asks, what benefit would there be from abundance with no one to share with? Who needs friends more so than the poor, young, or old who rely on others for their refuge or well-being? Furthermore, Aristotle claims that when people are friends there is no need of justice, but when they are just there is still need of friendship. Among these things that are just, what inclines toward friendship seem the most just of all. Aristotle holds friendships to be valuable because the "good life" entails friendships that allow for flourishing than cannot be achieved alone.

This section follows John M. Cooper's "shared activities" thesis to deliver an account of friendship that justifies the necessity of friendship for flourishing. As Cooper explains, friendship is necessary for living the "good life" due to the shared activities that friends participate in. When shared activities are thought to consist of cooperation among trustors and those trusted, the ECT model yields valuable insight into the role trust plays in living the "good life." In the next section, I focus exclusively on the cooperation as a result form successful trust, incorporating examples to better understand how *specific trust* informs the virtue of friendship.[15]

Shared Activities and Friendship

Cooper claims that shared activities provide an agent the opportunity to engage in a type of flourishing that one cannot do alone.[16] Three components make up Cooper's argument which justify the worth shared activities bring to friendships. These components, when compared to a

[14] Aristotle, *Nicomachean Ethics*, 1155a1–10.
[15] Recalling that trusted individuals remain unknown in cases of *broad trust*, this section will focus exclusively on *specific trust*. This follows from the understanding that one cannot become friends with an individual one does not know.
[16] Cooper, "Friendship and the Good in Aristotle," 306.

flourishing life of isolation, lead Cooper to the conclusion that life with a friend must be better than one without. Cooper argues that:

1) "Shared activities provide one with an immediate and continuing sense that what one finds interesting and worthwhile is really so, because the experience of others is seen to agree with one's own;
2) they enhance one's attachment to and interest in one's own personal, direct activities by putting them within the context of a broader group activity; and
3) they expand the scope of one's activity by enabling one to participate, through membership in a group of jointly active persons, in the actions of others."[17]

By participating in shared activities, within the context of a friendship, one may achieve a flourishing experience that cannot be achieved outside of that context. A solo pianist is limited to the combination of keys simultaneously recruited to produce a chord within a melody or song. Cooper's argument suggests that, in this example, having a duet partner allows for an extra set of hands that may play the same number of keys played in unison with the pianist's, thus producing a more complex arrangement of notes. If the musical analogy is expanded to include many pianos and pianists or other instruments and musicians, it is easy to see that there are more possibilities available to create a type of music that one could not create alone. With Cooper's account of shared activities serving as motivation behind an agent wanting to have a friend, cooperation that results from (i') may serve as the first of the shared activities that friendships entail.

[17] Cooper, "Friendship and the Good in Aristotle," 308.

Successful Cooperation and Friendship in the Predigital Age (t_0)

When an agent exhibits successful *specific trust* in t_0, the resulting condition, (i'), includes the possibility of evolved cooperation among participants. Recall that in a case of *specific trust*, an agent trusts a single, known individual to help fulfill needs or interests. If an agent were to wrongly trust an individual, those responsible are evident to the trustor. The ability to identify whom was responsible is key for understanding potential cooperation. Consider the following example:

E1) Tom, an elderly gentleman, has had trouble keeping up with landscaping needs around his property. Because Tom doesn't have family nearby, he decides to take out an ad in the local paper to request help from a willing individual, someone who is not afraid to get their hands dirty once a week for a few dollars in return. Tom, in this case, trusts that whoever shows up to work is, in fact, going to do a sufficient job helping with the landscaping. As it happens, Mark, seeing the ad in the paper, shows up to work at Tom's house the next day. Mark, in this case, trusts that Tom will pay him after the work is complete. Mark works hard for half of the day, after which Tom pays him the money advertised in the paper. With his landscaping needs met, Tom suggests that Mark comes back the next week, and Mark, with his financial needs met, agrees to the suggestion.

By applying the ECT model to this case of *specific trust* in t_0, the scenario may be broken down into the input conditions and the resulting output condition:

Tom (i): landscaping needs that cannot be fulfilled alone.

Tom (ii): request for help by taking an ad in the local paper

Mark (i): in need of work for payment.

Mark (ii): takes up request in the paper seeking help for compensation.

(i'): needs and interests are met, resulting in cooperation.

Tom and Mark both engaged in an activity that requires trusts prior to action. Tom trusts that the person who showed up would be willing to fulfill Tom's needs, and Mark trusted that Tom will pay him once the work is done. For the output condition (i') to arise, condition (i) and (ii) must be present, and an accurate risk assessment must be made.

By incorporating Cooper's shared activities thesis, balancing incentives in light of failed trust may be considered a starting point for shared activity, when shared activity involves cooperation. The cooperation that follows from (i') can then be understood as potential antecedent conditions for utility friendship. Tom and Mark may not become friends from this single interaction, although the continued cooperation among these two participants may evolve into such a relationship. With cooperation among participants as the result of a successful trust scenario, continued cooperation becomes easier by lowering the probability of potential loss. This is to say, when Tom and Mark help each other in E1, the following week's action requires less risk for both participants. This follows from the understanding that the trusting disposition considers (i), (ii), and weighs the potential loss against the expected gain to produce a decision. By considering Tom and Mark's arrangement as it occurred in E1, for an entire year, every consequent, (i'), strengthens their ability to trust in the future by lowering the risk. As the risk is lowered, the ability to trust in another becomes easier. In this way, the ECT explains that *specific trust* may lead to more trust among the two participants, and that with more successful trust comes more and evolved cooperation. Through evolved cooperation, participants begin to engage in the shared activities that friendships entail.

Successful Cooperation and Friendship in the Digital Age (t_1)

Although apply the ECT model of *specific trust* in t_1 does not seem to yield a result different from those seen in t_0, consider the following example, as it is used again in the next section:

E2) Sarah just moved to Baltimore from Texas, and would like to make friends. She is very busy with work and has found it difficult for her to meet people. In light of this, Sarah has downloaded a new app that promotes the ability people who also have the app. The app functions by matching participants with similar interests, after which they are able to communicate with one another via the app. Sarah downloads the app with the hope that using this technology will allow her to meet more people than she is able to currently. John has created a profile for himself on the same app for similar reasons. He, too, has just moved to Baltimore and would like to make friends. When Sara and John are matched together through the app, Sarah and John communicate primarily through the app and eventually decide to meet. Sarah and John meet for coffee one afternoon and both have an enjoyable time. When Sarah asks John if he would like to meet again sometime, he happily agrees.

In cases of *specific trust* in T1, the ECT can be break down the input conditions and output condition similarly to those seen in E1):

Sarah (i): wanting a friend.

Sarah (ii): utilizing the opportunity to communicate with someone before meeting them in person.

John (i): wanting a friend.

John (ii): utilizing the opportunity to communicate with someone before meeting them in person.

(i‘) needs are met resulting in cooperation.

Like Mark and Tom in E1, in E2, Sarah and John participate in an activity that requires trust prior to cooperation. In E2, Sarah trusts that John has represented himself honestly while communicating through the app, and she trusts that when they meet, her trust will be confirmed. The same can be said for John’s trust in Sarah. What follows is that with (i), (ii), and appropriately placed trust, Sarah and John have decided to cooperate with one another for future meetings. This is not unlike the cooperation seen between Tom and Mark, however considering each participant’s motivation behind downloading the app, it is easier to understand how, in this example, Sarah and John’s relationship may soon evolve into a friendship of pleasure.

In light of these examples, the ECT model is effective in explaining the extent to which *specific trust* cases are antecedent conditions for certain kinds of friendship in t_0 and t_1. E1 explores the potentiality of the formation a utility friendship as a result of trust, and E2 does the same with respect to a pleasure friendship. Understanding that virtuous people are rare, most friendships are of utility, of pleasure, or a combination of these two categories. Virtuous friends, as Aristotle claims, are in no need of justice because those individuals are habituated with virtue.[18] Justice arises to balance equity when it is lost among non-virtuous friends. In the context of E1 and E2, failed trust lends to conditions for justice to arise.

[18] Aristotle, *Nicomachean Ethics*, 1155a26.

SECTION III

TRUST AND JUSTICE

The purpose of this section is to (1) explain Aristotle's notion of friendship as it relates to justice, (2) apply the ECT model to examples of *specific trust* to show how justice deals with failed trust in t_0 and t_1, and (3) apply the ECT model to examples of *broad trust* to examine how justice deals with failed trust in t_0 and t_1. The applications are intended to yield an enhanced understanding of justice that can be explained in terms of balanced equity and equal distribution of fairness. Applying the ECT model to predigital and digital age examples allows for an enhanced understanding of trust as it relates to the virtue of justice.

In Book VIII, Aristotle states that friendship and justice are concerned with community, and are both present in communities.[19] Like friendship, what is just varies in "species" according to the people that promote it. When people come together for what is advantageous (i.e. pleasure, utility, flourishing), the formation can be understood as communities of friends. Communities act as parts to a larger political community that also come together for what is advantageous, and people call what is commonly advantageous just.[20]

An Aristotelian conception of justice is comprised of two forms: justice as lawfulness, and justice in a narrower sense, particular justice.[21] Particular justice concerns the ideas of distributional and transactional justice.[22] Whereas distributional justice deals with the allocation of fairness (wealth, honor, opportunity, and authority throughout the *polis*) in a broad sense, it is

[19] Aristotle, *Nicomachean Ethics*, 1159b25–30.
[20] Aristotle, *Nicomachean Ethics*, 1160a10–20.
[21] James O. Urmson, "Aristotle's Doctrine of the Mean," *American Philosophical Quarterly* 10, no. 3 (July 1973): 223–30.
[22] Aristotle, *Nicomachean Ethics*, 1131a1–10.

the narrower sense, transactional justice, that is most useful to understanding role trust plays in just action among known participants. The type of justice regarding rectification of equity between people deals within justice as a consequent of an unbalanced transaction and is called corrective justice. In cases of *specific trust*, I argue that failed trust often promotes justice in this sense. When a trusted individual fails to fulfill the needs or interests of the other, the trustor is then owed by that individual. To rectify this inequity, trustors may then consider cultivating norms and institutions that effect incentive structures to ensure justice in future trust scenarios.

Justice and Failed Specific Trust the Predigital Age (t_0)

The previous section examines what results from successful trust. Using the same examples for comparison, consider failed trust in E1:

Tom trusts that Mark is willing to work around his property for compensation. However, Mark is unprepared to work as hard, or as long, as Tom would like him to. After a couple hours of work, Mark asks Tom if he can be paid so that he may go about his day. At this, Tom realizes that Mark has not met his landscaping needs, and has misplaced trust in him.

ECT input conditions remain the same, yet what results from Tom's unfulfilled needs is output condition (ii'). According to the model, failed trust ought entail evolved norms and behaviors to balance the incentive structures that promote successful trust scenarios. Tom may either avoid trusting in Mark again all together, or rebalance the incentive structures so that Mark is inclined to be trustworthy for future jobs. In this example, consider the possibility that Tom determines that perhaps he had not offered to pay Mark enough for his work. For next week, he suggests to Mark that he will pay him a bit more per hour, so long as Mark finishes the work he needs done. To this, Mark agrees and comes back the following week.

In t_0, the communication between Tom and Mark was first seen in the newspaper ad, and henceforth acted out in the traditional, face-to-face mode. For Tom, the balance of incentives was contingent on his ability to communicate with Mark, thus allowing them to reach an agreement. The agreement may be understood as justice serving to set right what Tom thought to be misplaced trust. Tom, having paid for a newspaper ad, would be less inclined to use the newspaper as the mode of communication, had they not been able to reach an agreement. In this way, the traditional mode of communication has served Tom and Mark well.[23] The ECT model seems effective in explaining that, in cases of *specific trust*, (ii') may serve as conditions that promote rectificatory justice among participants. In this example, technology does not disrupt conditions for trust.

Justice and Failed Specific Trust in the Digital Age (t_1)

The techno-mediated mode of communication seen in E2 renders an outcome different than the one seen with Tom and Mark. Sarah and John both utilize technology as their primary means of communication prior to their first face-to-face interaction. Considering E2, in the event that Sarah mistrusted John, what follows output condition (ii') seems to function differently than those seen in the predigital age. Consequently, when trust is mediated through a techno-mediated mode of communication, corrective justice seems less likely to occur.

Using her app, Sarah has communicated with John for a week before agreeing to meet with him in person. She trusts that he is the person he has portrayed himself to be through their communication. Upon meeting John, she realizes that she has misplaced this trust in him. John is nothing like how he appears online, physically or otherwise. In light of her mistrust, Sarah ought

[23] The same example may be construed in reverse to read Mark as the participant who misplaced trust. This is to say, the ECT breakdown works in both directions in this example, as seen with successful trust in E1.

to try and cultivate norms and behaviors to achieve justice. However, Sarah decides that there is no easy way to balance incentive structures that does not involve her discontinued use of the dating app.

In the case with Tom, had he not decided to rebalance the incentive structure, he would not have taken out another ad in the paper. When Tom considers his failed trust in Mark, and the cost of a newspaper ad, the calculated potential loss renders Tom less likely to trust a person that he meets from an ad in the future. Yet in t_1, technology affects trust differently by offering increased opportunities for reliance. When Sarah mistrusts John, she does not attempt to rebalance the incentive structures because of the abundant access she now has to other people through her app. Rather than troubling herself, as Tom did with Mark, Sarah simply decides to move on to the next candidate for friendship. The decision to change nothing, in light of failed trust, is the result of over reliance on the sheer number of opportunities. When deciding to trust, over access to (ii) lends to skewed risk assessments, resulting in mistrust.

Specific trust in t_0 allows for a balanced ECT model. When the conditions in the ECT are balanced, the model explains how trust works within given trust scenarios. However, by comparing the cases in t_0 with those in t_1, the model suggests that the techno-mediated mode of communication has allowed for unbalanced input conditions. The disproportion results from increased access to opportunities for reliance. Because technology allows more access to one another, risk assessments becomes skewed. When risk assessments become skewed, the ability for individuals to successfully trust become more difficult. Within these cases, the ECT model explains that (ii') ought to promote attempts for rectificatory justice. Applying the ECT model also aids in understanding why, in t_1, (ii') is unable to do so. However, the unbalanced conditions seen in t_1 are not exclusive to *specific trust*. Cases of *broad trust* also suffer from unbalanced

conditions in t_1, but are produced from over relying on too few opportunities, rather than too many.

Justice and Failed Broad Trust in the Predigital Age (t_0)

Recalling that a notion of *broad trust* consists of a trustor and an unknown conglomerate of individuals, the ECT model functions differently with respect to (ii'). Whereas in *specific trust*, a trustor has knowledge of the trusted individual, in *broad trust* trustors cannot discern who they mistrusted, were they to do so. Because of this, trustors are more motivated to cultivate norms and institutions, rather than trying to incentivize someone that is unknown. The only viable option is to change the norms and institutions responsible for creating the input conditions that led to their decision (in this case, poor decision) to trust. In other words, for the trustor to ensure that justice is distributed equally in the future, trustors will aim to cultivate norms or institutions to achieve that effect. Consider the following example of failed *broad trust* in t_0:

E3) David decides to go to the grocery store to buy a bag of oranges that is required to make the cranberry-orange walnut bread that his daughters like. At the store, David notices that the oranges are sold in bundles, making it impossible to examine every orange in the bundle. David buys a bundle, trusting that the store would not sell a bundle of rotten oranges. When David gets home, he unbundles the oranges and sees that the oranges in the middle are rotten, yet he cannot discern who it was that he mistrusted. Either the orange growers, packagers, or sellers may be the party that David mistrusted. Further still, there is no way of knowing whom, among the party, was the individual who caused his misplaced trust. In light of this, David considers three viable options to ensure that justice is more evenly distributed among orange shoppers like himself. Among other options, David may (1) choose to lend his business to another store, increasing competition among stores, (2) he may leave a review with the manager so that they

may better ensure orange quality, or (3) grow oranges himself to prevent this from happening again.

As seen in cases of *broad trust*, applying the ECT model allows for a breakdown of the input conditions and failed output condition. These read:

(i) Having oranges to make dessert.

(ii) The grocery store's bundle or oranges.

(ii') The bundle of oranges is rotten and, thus, unfairly priced.

In t_0, E3 affords the trustor an opportunity to achieve a sense of justice. Because failings in *broad trust* mean that trustors are unsure who they mistrusted, there is no possibility for rectificatory justice. Sensing this, David organizes three potential actions to create distributive justice for future scenarios. Option (1) redistributes future purchases from the store responsible for his mistrust. Ideally, by redistributing his business to another story, the effects of David's choice will be felt by whoever was responsible for the rotten bundle. Option (2) allows for someone in charge of the store to distribute blame to whoever they feel most responsible. Lastly, option (3) renders similar economic effects as seen in option (1). In cases of *broad trust*, distributive justice may be achieved when (ii') serves a condition that promotes cultivating norms. The balanced ECT model in t_0 handles failed trust by affording the trustor the opportunity to inform norms and institutions to regain distributive justice. In this case, technology does not disrupt an individual's ability to achieve trust in future scenarios.

Failed Broad Trust in the Digital Age (t_1)

At times, the techno-mediate mode has affected how individuals deal with failed cases of *broad trust* by offering too few opportunities for reliance. To show this, consider the following example:

E4) Susie is a student at a state university. To pay for her tuition, the university requires her to use a credit card to complete the transaction. For tuition payments, the university has a website that mediates all student transactions. Students at this university are aware of tuition payment protocol and are familiar with the university's website. One day, just before tuition is due, Susie receives an email from the finance office informing her that there is a remaining balance on her student account. Upon reading the email, Susie trusts that the information is correct and clicks on the link directing her to another webpage. The webpage appears to look and function as the site she is familiar with. By inputting her student information and credit card number into the website, Susie is phish scammed by unknown scammers. When Susie realizes that she has been scammed, she decides there is no way to discern who she mistrusted.

An ECT breakdown of the conditions that make up this case of *broad trust* read:

(i) Paying for her education.

(ii) Using the mediated online payment method.

(ii') Susie was phish scammed.

In E4, the techno-mediated mode of communication serves as the only means for Susie to pay her tuition. In this case, over reliance of (ii) differs slightly form those seen in failed *specific trust*. Rather than over relying on the increased number of opportunities (as was the case with Sarah and John), in E4 Susie must rely on the single opportunity to fulfill her needs. Without enough opportunities for reliance, the input conditions lend to Susie's mistrust. As phish scammers come to recognize the overreliance, they devise ways to replicate official websites and email addresses to trick individuals into revealing their credentials online. Too few opportunities for reliance all but forced Susie to mistrust. As a result, Susie became susceptible to phish scams.

Whereas in t_0, cases of failed *broad trust* may become antecedent conditions for distributive justice, in t_1 trustors cannot create the necessary conditions to do so. Susie's only viable option consist of reporting the fraudulent website. Yet this option does not affect the input condition (ii) as seen in the similar cases of E3. In E3, David had multiple options to cultivate norms and institutions to redistribute justice for futures cases. In E4, Susie may report the fraudulent website, but is less likely to achieve the same ends. When there are too few opportunities for reliance, risk assessments become skewed and failed trust is more likely to occur. Furthermore, the techno-mediated mode of communication seems less receptive to attempts at distributive justice.

The ECT application of failed trust within t1, results from a disproportion of input conditions. While *specific tru*st cases tend to afford too many opportunities for reliance, causing mistrust from skewed risk assessments, in *broad trust* the disproportion arises from having only one opportunity for reliance. Consequently, failed trust in t_1 does not allow for the types of justice seen in t_0.

CONCLUSION

As Aristotle argues, we are political animals by nature.[24] The development of *specific trust* and *broad trust* shows that trust is central to our social lives by providing background conditions that encompass all cases of trust. As individuals come to rely on others, those trusted are believed to be trustworthy. By determining that trustworthiness should not be considered a virtue, nuances involved make evident that trust cannot be explained merely on behalf of those trusted. Thus, a more complex model of trust is required to examine trust on behalf of trustors and those trusted.

Utilizing the ECT model to explain trust provides insight into conditions that are otherwise less evident. Consequents from the decision to trust can often be explained in terms of cooperation or as cultivated norms and balanced incentives. ECT insight with respect to cooperation explains the emergence of certain types of friendship as a product of successful trust, and ECT applications with respect to cultivated norms and balanced incentives yield an enhanced understanding of justice when trust fails. As this insight is applied to the predigital age, trust is seen to produce conditions that lend to friendship, or conditions that lend to justice. Yet in the digital age, achieving justice from failed trust seems harder to come by. Considering this, takeaways from ECT applications provide a more comprehensive understanding of trust as it relates to the virtues of friendship and justice, especially in the digital age.

With respect to trust, the "good life" ought to entail technology that enhances our ability to trust. However, if technology imports access to the "good life" and efficiency within activities

[24] Aristotle, *Politics,* in *Politics: Aristotle; A New Translation,* trans. C. D. C. Reeve (Indianapolis, IN: Hackett Publishing Company, Inc., 2017).

that make up the "good life," the ECT model makes evident that, in some cases, technology fails at doing so. When trust is harder to achieve in the digital age, so too is the "good life." However, because flourishing may not exclude technology all together, considering the ways that technology affects an individual's ability to trust improves the prospect of flourishing alongside the technologies that promote them to do so.

BIBLIOGRAPHY

Aristotle. *Nicomachean Ethics*. Translated by Joe Sachs. Newbury, MA: Focus Publishing, 2002.

Cooper, John. "Friendship and the Good in Aristotle." *The Philosophical Review* 86, no. 3 (1977): 290–315.

Faulkner, Paul., and Thomas Simpson. *The Philosophy of Trust.* Oxford: Oxford University Press, 2017.

Jones, Karen. 2012. "Trustworthiness." *Ethics: An International Journal of Social, Political, and Legal Philosophy* 123, no. 1 (October 2012): 61–85.

Nickel, Philip. "Being Pragmatic about Trust." In *The Philosophy of Trust*, edited by Paul Faulkner and Thomas Simpson, 195–213. Oxford: Oxford University Press, 2017.

Potter, Nancy Nyquist., *How Can I be Trusted? A Virtue Theory of Trustworthiness*. Lanham, MD: Rowman & Littlefield, 2002.

Urmson, James O. "Aristotle's Doctrine of the Mean." *American Philosophical Quarterly* 10, no. 3 (July 1973): 223–30.