

The Pennsylvania State University

The Graduate School

“EVOLUTIONARY LOVE” IN THEORY AND PRACTICE

A Thesis in

Philosophy

by

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Submitted in Partial Fulfillment

of the Requirements

for the Degree of

Doctor of Philosophy

December 2001

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## Abstract

The cosmology of Charles Peirce is amongst the least celebrated aspects of his thought. It is typically considered far too anthropomorphic to be a serious contribution to our understanding of the evolution of reality. While this anthropomorphism may disqualify the cosmology from serious scientific consideration, it is quite possible that the cosmology does offer philosophical insights about the very human experience that inspired it. In this dissertation I offer a “reclaiming” of the Peircean cosmology. My intent is to look to the Peircean cosmology not for insights about the growth of the cosmos as such, but for insights about the growing self.

Specifically, the dissertation takes cue from Peirce’s 1893 essay “Evolutionary Love” which claims that “growth comes only from love” or Christian agape. The majority of the dissertation is dedicated to a historically and biologically informed examination of the relation between agape and growth in Peirce’s philosophy. My hope, however, is to not only to clarify the specifics of this relationship in theory, but also to apply Peirce's theoretical insights to an experientially persuasive account of the growing self. In the final chapter I offer a odel of personal growth in which "existential abduction" is understood to inaugurate a purposeful but undetermined development of the self's ends or desires. In the course of the investigation, I will offer interpretive suggestions about the nature of Peircean growth through habit-taking, the importance of

feeling and sentiment in Peirce's philosophy, and the relationship of agape to eros in the Peircean version of agapastic love.

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## Acknowledgements

I would like to begin by thanking Joseph Flay, John Stuhr and the Pennsylvania State University Department of Philosophy for the consistent and generous support I have received in every aspect of my graduate career. The Penn State Philosophy Department is a wonderful place to learn. I am particularly grateful to Daniel Conway, who, in his capacity as Graduate Chair during the years in which this dissertation was written, has worked magic for me on more occasions than I can recall. I would also like to thank Vincent Colapietro, a friend and mentor, who, since my days at Fordham University, has been instrumental in the furthering of most every aspect of my intellectual and professional career. To both Carl Hausman and Douglas Anderson, mere written or spoken gratitude seems woefully inadequate. Professors Hausman and Anderson have extended themselves not only far beyond what is required but well beyond what is reasonable. I am enormously indebted to both. The value of Professor Hausman's friendship to me is rivaled only by the value of his careful and insightful commentary on every thought, no matter how undeveloped, that I have shared with him. Professor Anderson has taught me more from his person than I will ever be able to cull from pages in a book. Without Professor Anderson I would not have written this dissertation. I am grateful to both my co-mentors for their patience and their tolerance. Finally, I am most grateful to my parents, my family and my friends, unmerited gifts that are my finest achievement.

**Introduction:**  
**Reclaiming the Cosmology**

It looks to me as though the investigation we are undertaking is no ordinary thing, but one for a man who sees sharply. Since we're not clever men . . . we should make this kind of investigation of it. If someone had, for example, ordered men who don't see very sharply to read little letters from afar and then someone had the thought that the same letters were somewhere else also but bigger and in a bigger place, I suppose it would look like a god send to be able to consider the little ones after having read these first, if, of course, they do happen to be the same.<sup>1</sup>

The macrocosm and the microcosm in *The Republic* do, of course, "happen to be the same," at least in an essential respect. The inference from the one to the other is justified by the reality of an Idea of justice, by that which makes justice justice in both the city and the soul. And so Socrates goes on to construct the perfectly just *polis* by which he infers, analogously, the structure of the perfectly just soul. The strategy yields a compelling account of the harmonious soul. Socrates looks to the macrocosm and learns about the human.

In the Peircean cosmology we have a macrocosm of significantly larger scope. The cosmology was intended by Peirce to be a unified theory of all reality--mental and physical, possible, actual and general--with implications for every branch of human

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<sup>1</sup> Plato, *The Republic*, 268c7.



learning. Indeed, it would, Peirce hoped, be in its book-long formulation “one of the births of time” (1.354 fn.1).<sup>2</sup> It has, in fact, turned out to be perhaps the least celebrated aspect of this thought, famously referred to as the “black sheep or white elephant” of Peirce’s philosophy by W.B. Gallie in 1966.<sup>3</sup> The considered, though not unanimous, verdict on Peirce’s cosmology is that it is far too anthropomorphic a description of reality to be thought of as a serious scientific hypothesis.<sup>4</sup> Because of its infusion of final causality, feeling and consciousness into the physical world, it has alienated those interested in a scientifically respectable “Unified Theory of the Universe.”<sup>5</sup> But while these features of the cosmology have been a distraction for those seeking a scientific thesis *per se*, they can only be an occasion for intrigue for those of us interested in the human as such. The phenomenon that is writ large across the growing anthropomorphic Peircean cosmos is, after all, *human* growth. And so, with a strategy similar to that of Socrates, I suggest that we consider looking to the Peircean macrocosm for wisdom about the microcosm. This dissertation offers a “reclaiming” of the anthropomorphic Peircean cosmology. It attempts to take back what is ours. It seeks to apply Peirce’s cosmological insights about evolution and love to our everyday lived experience of human growth.

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<sup>2</sup> References, when possible, will be to the *Collected Papers of Charles Sanders Peirce* in the customary fashion of volume and paragraph number.

<sup>3</sup> W.B. Gallie, *Peirce and Pragmatism*, p. 216.

<sup>4</sup> Not all scholars are in complete agreement. See, for example, Janice Staab’s *Agape: Peirce’s Abduction Concerning the Growth of Intelligibility*, especially Chapter Five.

<sup>5</sup> The phrase from the Stephen Hawking’s “A Unified Theory of the Universe Would Be the Ultimate Triumph of Human Reason,” as quoted by John K. Sheriff, *Charles Peirce’s Guess at the Riddle*, p. xvi.

Our main focus will be Peirce's 1893 essay "Evolutionary Love," in which Peirce considers the claim that "growth comes only from love," or agape (6.289). In "Evolutionary Love" Peirce suggests that "growth by habit-taking"--a theory of growth formulated in various contexts throughout his intellectual career--is essentially similar in structure to the "formula" of growth implicit in agape (6.289). Our task below will be to clarify this relationship between agape and growth and to apply what is learned in theory to our experience of love and growth in the self. My intent is to provide a careful analysis of "Evolutionary Love" so that Peirce's claims about growth and love--writ large in the cosmology--can be reclaimed and subsequently applied to the growing self. My interest is therefore "Evolutionary Love" in both theory and practice.

Chapter One, "Evolutionary Love in Context," reviews the theological and historical context of Peirce's attempt to characterize cosmic growth as agapastic. The association between agape and growth is traced from the Greek vernacular through the Septuagint and into Christianity. The relationship between agape and eros is reviewed in order to highlight a number of reasons why these two words for love have traditionally been considered very different "formulas" or principles of evolution. In Chapter One we will also address the question of what intellectual motives Peirce may have had for appealing to agape in his discussion of cosmic evolution. Chapter Two, "The Growth of Mind" offers an analysis of the Peircean theory of growth. I try to show how Peirce's theory of "habit-taking" in inquiry can be used to clarify cosmic growth. Abduction, induction and deduction are each extended beyond the narrowly logical into the physiological and the cosmological. Chapter Three, "Three Models of

Growth” reviews the three models of evolution Peirce details in “Evolutionary Love” by examining them in light of their biological counterparts. Some emphasis is given to Darwin and the logic of Darwinian evolution. It is in this chapter that I try to clarify the specifics of why Peirce thought that agape might have been operative in cosmic and biological growth. This chapter also suggests that Peirce has unwittingly given implicit formulation to a particular rendition of agape, one that has some precedent in the philosophy of St. Augustine. Chapter Four, “Growth and Love in the Self” applies the theoretical considerations highlighted above to a model of the growing self.

### **Literature Review**

A number of books and articles have essentially functioned as necessary conditions for this dissertation. Douglas Anderson and Carl Hausman have both appealed to Peirce’s agapastic cosmology in their contributions to the philosophy of creativity. It is the work of Anderson and Hausman on creativity that has suggested to me how the cosmology might likewise be put to the task of clarifying personal growth. Anderson’s *Creativity and the Philosophy of C.S. Peirce*, which put Peirce’s theory of logical growth to the task of clarifying cosmological and artistic growth, inspired the logic of what follows. As Anderson applies the three inferences of growth to creativity, I have applied them to the growth of the self. My discussion of Peircean agape is

heavily indebted to Carl Hausman's discussion of eros and agape in creativity in "Eros and Agape—A Peircean Insight," and "Philosophy and Tragedy: The Flaw of Eros and the Triumph of Agape." Vincent Colapietro's synthesis of Peirce's early and late remarks on the self in *Peirce's Approach to the Self* has made it possible for me to take advantage of the isomorphism between the self and cosmos while also benefiting from Peirce's own theory of personal growth, his theory of "self-control." Robert Corrington's *An Introduction to the Philosophy of C.S. Peirce* and Patrica Muoio's "Peirce on the Person" have helped to clarify to me the importance of feeling in both the Peircean cosmology and the Peircean self. Anders Nygren's monumental and controversial *Agape and Eros* has provided the clearest possible articulation of the distinction between agape and eros. A review of "Evolutionary Love" in light of Darwin's evolutionary theory and social context was made possible by Peter Bowler's *Evolution: The History of an Idea* and Steve Jones' *Darwin's Ghost*. Finally the popular works of the psychologists M. Scott Peck and Nathaniel Branden were instrumental in suggesting to me what fundamental elements of psychological growth might be recovered from the Peircean cosmology.

More generally, a wealth of scholarship has helped me work through the difficult, obscure and contradictory in Peirce's text. Most helpful to my mind has been Chapter Sixteen of Murray Murphey's classic *The Development of Peirce's Philosophy* in which Murphey attempts to draw a clear thread of argument from "A Guess at the Riddle" through "Evolutionary Love." Robert Corrington's *An Introduction to C.S. Peirce* and John K. Sheriff's *Charles Peirce's Guess at the Riddle* offer practically

minded readings of the cosmology in a spirit similar to my own. Christopher Hookway provides a brief but helpful discussion of the cosmology in its relation to the regulative ideals of inquiry in *Peirce*. Carl Hausman has emphasized the consequences of the evolutionary character of reality for knowledge and inquiry in his *Charles S. Peirce's Evolutionary Philosophy*. Douglas Anderson and Vincent Potter offer clear (and relatively consistent) readings of Peirce's cosmogony in "Realism and Idealism in Peirce's Cosmogony" and *Charles S. Peirce on Norms and Ideals*, respectively. Peter Turley has written the lone monograph on the cosmology, *Peirce's Cosmology*. Within these works and elsewhere exist a number of specific treatments of "Evolutionary Love." Raposa provides a chapter length reading in *Peirce's Philosophy of Religion* as does Vincent Potter in *Charles S. Peirce on Norms and Ideals*. Finally, Helmut Pape applies Peircean agapasm to social evolution in "Love's Power and the Causality of Mind: C.S. Peirce on the Place of Mind and Culture in Evolution."

## Peirce's Anthropomorphism

Despite the fact that the Platonic Forms themselves reappear to play a seminal role in Peirce's own cosmology, we, unlike Socrates, do not possess an obvious justification for our inference from the macrocosm to the microcosm. Our interest is the relation of personal growth to love, but Peirce's only extended treatment of the relation between growth and love occurs not in the context of his discussion of self-control--his own theory of personal growth--but in the context of his cosmology. Ideally, we would like to be able to apply his insights about cosmic agape and growth to human agape and growth. We would like, with Socrates, to read those "same letters . . . in a bigger place." While the justification for such a maneuver may not be obvious in Peirce as it is in Plato, it is not entirely unclear. The simplest explanation of why the cosmology should be a useful guide for understanding the human is that it is itself modeled on the human. If we are interested in culling insights from the cosmology in order to think about love and personal growth, we are likely justified in this because the cosmology is, in large part, modeled upon human growth. The remainder of the Introduction will be dedicated to explaining Peirce's anthropomorphism and to suggesting why this inference from the macrocosm to the microcosm, from the Peircean cosmology to a model of the growing self, might be considered both just and profitable.

At times Peirce spoke of anthropomorphism as something like a condition of all human thought including scientific thought. Rather than denying the imprint of the

human intellect on human inquiry, Peirce insisted that basic notions of science must be, at bottom, inspired by fundamental elements of human experience (1.316): "The very conception of causality," Peirce noted, "has its origin in our tendency to seek relations in nature analogous to intellectual relations" (MS 963).<sup>6</sup> All human artifacts, ideal or actual, bear the stamp of their author, and so "'Anthropomorphic' is what pretty much all conceptions are at bottom;" (5.47).<sup>7</sup> Human ideas are necessarily informed by human experience.

While Peirce insisted on this anthropomorphic condition of thought, however, he did not accept the conclusion that this condition of thought placed a veil between the world in itself and the human inquirer. Rather than supposing that our logic was tragically foreign to the nature of things, Peirce thought we should assume, as a regulative ideal of inquiry, that human ideas and inferences were analogues of real cosmic ideas and inferences, that our logic and our concepts were derivative of an objective cosmic logic. From our own experience of the logic and growth of ideas, then, we would infer what the macrocosmic growth of ideas would analogously be like. This inference from microcosmic logical growth to macrocosmic logical growth is explicitly referenced in Peirce's speculations about the origin of the cosmos:

Every attempt to understand anything—every research—supposes or at least *hopes*, that the very objects of study themselves are subject to a logic more or less identical with that which we employ . . . . [The hypothesis] we ought to try is . . . the hypothesis that the logic of the universe is one to which our own aspires, rather than attains. (6.189)

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<sup>6</sup> See MS 293. See also, 5.536.

<sup>7</sup> Again, see 5.536.

We ought to hypothesize, in other words, that there is a cosmic logic not foreign to our human logic. If our hypothesis should be that the logic of the cosmos is one to which our logic must “aspire” this means that our hypothesis about the nature of the cosmos will involve a generalization and ontologization of our own logic. Peirce therefore assumes, as a regulative idea, that the cosmos is, in its most general features, "subject to a logic" similar to our own, and goes on to create a metaphysics which is a reflection of this logic, a metaphysics which "consists in the results of the absolute acceptance of logical principles not merely as regulatively valid, but as truths of being" (1.487).

Far from anthropomorphism being a *limit* on human inquiry, then, Peirce makes a virtue of necessity and declares anthropomorphism to be a regulative *ideal* of inquiry. Anthropomorphism actually becomes a recommending factor in hypothesis formation:

But as to its being unscientific because anthropomorphic, that is an objection of a very shallow kind . . . . [I]n regard to any preference for one kind of theory over another, it is well to remember that every single truth of science is due to the affinity of the human soul to the soul of the universe, imperfect as that affinity no doubt is . . . . I have after long years of the severest examination become fully satisfied that, all other things being equal, an anthropomorphic conception, whether it makes the best nucleus for a scientific working hypothesis or not, is far more likely to be approximately true than one that is not anthropomorphic. (5.47)



As Hookway and others have pointed out, Peirce's strategy here places him squarely in a tradition of philosophers that have sought to explain how reality must be if we are to explain the possibility of human knowledge.<sup>8</sup>

This said, what might distinguish Peirce from other philosophers in this tradition is that this regulative hope of inquiry is not, in Hookway's words, a "blind hope."<sup>9</sup> For Peirce this hope is justified both by the successes of past inquiry and by supporting scientific conclusions and philosophical reflections. Peirce was convinced, for one, that the historical progress of scientific inquiry could not be explained without supposing that humans had a natural faculty for formulating nearly correct hypotheses:

In examining the reasoning of those physicists who gave to modern science the initial propulsion which has insured its healthful life ever since, we are struck with the great, though not absolutely decisive, weight they allowed to instinctive judgments. Galileo appeals *to il lume naturale* at the most critical stages of his reasoning. Kepler, Gilbert, and Harvey—not to speak of Copernicus—substantially rely upon an inward power, not sufficient to reach the truth by itself, but yet supplying an essential factor to the influences carrying their minds to the truth." (1.80)

In other words, the hypothesis that seems simpler in the sense of being the more instinctive, the more natural to the human reason, has a better chance of being more or less correct. This suggests that there is some "affinity" between the human and the cosmic. Past success in inquiry is one significant phenomenon, then, that would be explained by the hypothesis that there is a real likeness between our logic and the logic of the universe. Secondly, to say that hypotheses ought to be based on the assumption

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<sup>8</sup> See Christopher Hookway, *Peirce*, p. 262-288.

of a similarity between the human and cosmic logic is not to deny that these hypotheses must be consistent with the working hypotheses and conclusions of the special sciences. Peirce considered his cosmological work to be both empirically grounded and in principle verifiable. That Peirce considered his cosmology more than (or, better, different in kind than) an artistic depiction of the human condition is evidenced by both the explicit passages in which he claims such status for his work and the actual empirical and logical arguments that Peirce offered for his cosmology. Peirce's various arguments for tychism and against necessitarianism in "The Doctrine of Necessity Examined" and "Reply to the Necessitarians," his analysis of protoplasm in "Man's Glassy Essence," his appeal to Lamarckianism in "Evolutionary Love"--all of these make clear that Peirce's cosmology was, to his own mind, not beyond the limits of scientific respectability.<sup>10</sup> Although the anthropomorphic hypothesis is preferred, it remains, in theory, subject to scientific testing and verification.

Of course our interest is less in whether Peirce is scientifically justified in creating an anthropomorphic cosmology than in the fact that he did create an anthropomorphic cosmology. The Peircean cosmology is indeed anthropomorphic at every turn, here reflecting the patterns of human inquiry, there taking on features such as feeling and final causality that we would typically associate only with animate

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<sup>9</sup> *Ibid.*, p. 116.

<sup>10</sup> We will have cause to examine some of these arguments below, especially the analysis of Lamarckianism which helped Peirce make his case for agapasm. Peirce's arguments against necessitarianism and for tychism have been reviewed thoroughly in the literature. See, for example, Carl Hausman, *Charles S. Peirce's Evolutionary Philosophy*, p. 169ff., and Vincent Potter, *Charles Peirce on Norms and Ideals*, p. 153ff.

beings. While claims of this sort have certainly been a distraction for those interested in the cosmology as scientific hypothesis *per se*, they can only inspire our own project. For even if, despite Peirce's protestations, the cosmology were to be considered overly anthropomorphic--an *excessive* rendering unto the cosmos of characters typically predicated of the human--this is hardly cause for despair for those of us interested in understanding features of human experience as such. As Thomas Goudge has noted, Peirce's evolutionary theory--when applied to processes less comprehensive than cosmic evolution but more purposeful than organic evolution--has an acute explanatory power.<sup>11</sup> In many ways Peirce's cosmology actually turns out to be a more adequate depiction of the growing self—complete with an account of feeling, final cause, and embodiment—than anything Peirce explicitly offered about selfhood. Perhaps the most poetic and succinct suggestion that in studying the Peircean cosmology we are studying something like our own experience writ large is Peirce's claim that God—which he was happy to equate with the growing universe in some contexts—should be thought of as "vaguely like a man."<sup>12</sup> Bernstein and others have famously claimed that Peirce has failed to provide a persuasive account of selfhood. But "the real failure," as Anderson

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<sup>11</sup> Referring specifically to social evolution, Goudge writes, "Final causation overshadows efficient causation at the state of societal evolution. This gives the process a "Lamarckian" character, as Peirce contended. A continuity of minds thus becomes possible. In short, human societal evolution has taken a form quite different from that of biological evolution." See Goudge, "Peirce's Evolutionism--After Half a Century." Helmut Pape explores agapasm in social evolution in "Love's Power and the Causality of Mind."

<sup>12</sup> Donna Orange writes "Thirdness, continuities, reasonableness, intelligence . . . All of these, when the context seemed appropriate, he was willing to call God." Orange, *Peirce's Conception of God*, p. 83. See pp. 70-83. Raposa, however, resists any unequivocal equation of God with the growing cosmos. See Chapter Two of his *Peirce's Philosophy of Religion*. On Peirce's anthropomorphic theism see also Vincent Potter's "Vaguely Like a Man: The Theism of Charles S. Peirce."

responds, "is that there is a tendency not to see what stares us in the face, as Peirce might have said. Peirce's entire philosophy is a theory of the self."<sup>13</sup> In Peirce's explicit anthropomorphism we have a clue that what are about to study in the cosmology is indeed something like the human experience writ large. The cosmology is already the result of an analogy from the microcosm to the macrocosm. Our inference back from the macrocosm to the microcosm, then, would simply be a reclaiming of the Peircean cosmology.

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<sup>13</sup> Douglas Anderson, *Creativity and the Philosophy of Charles Sanders Peirce*, p. 152. See Vincent Colapietro on Bernstein and Manley Thompson, *Peirce's Approach to the Self*, p. 65ff. Whether this is an adequate response to Bernstein, whether even the cosmological version of the Peircean self can account for agency, can be judged only after a model of the self is laid out below.

**Chapter One:**  
**“Evolutionary Love” in Context**

"Evolutionary Love" is the final article of Peirce's *Monist* series of 1891-1893. The series as a whole represents Peirce's most complete and systematic account of his cosmology, and "Evolutionary Love" makes one of the most provocative and controversial claims of the series:

[T]he statement of St. John is the formula of an evolutionary philosophy, which teaches that growth comes only from love. . . . The philosophy we draw from John's gospel is that this is the way mind develops . . . Love, recognizing germs of loveliness in the hateful, gradually warms it into life, and makes it lovely. That is the sort of evolution which every careful student of my essay "The Law of Mind" must see that *synechism* calls for. (6.289)

Peirce, of course, is not willing to provide a deductive argument for his agapasm. In fact, the article is an excellent illustration of Peirce's "cable" metaphor of argument in which a series of plausible lines or strands of argument corroborate and strengthen each other. Appealing variously to a textual analysis of Christian love, to the teaching of sentiment, to evolutionary biology, and even to a cursory survey of intellectual growth, Peirce hopes to convince that cosmic growth can reasonably be considered to be derivative *of* or one *with* a cosmic agape. There is, however, one particular "strand" that does seem to provide the most support for his suggestion, and it is this line of argument

that will be our focus below. The main argument of “Evolutionary Love” is that growth by habit-taking shares a structure or a logic with the formula of growth implied by Christian agape. Otherwise put, Peirce’s claim is that the “formula of an evolutionary philosophy” suggested by agape can be seen to be at work in his model of growth by habit-taking. The first three chapters of this dissertation will examine this claim in detail. Our first tasks, the tasks of this chapter, will be to provide a general background on agape and to suggest what motives Peirce might have had for appealing to agape in his description of cosmic growth.

## **I. Theological Context**

The first section of "Evolutionary Love" is a very brief discussion of the history of agape as an evolutionary formula. Peirce begins the essay by noting that it is eros, rather than agape, that has been considered a principle of change since at least Empedocles. When Peirce claims that "Nevertheless, the ontological gospeller, in whose days those views were familiar topics, made the One Supreme Being, by whom all things have been made out of nothing, to be cherishing love," (6.287) he is echoing the traditional theological position that the word "agape" was specifically chosen by the New Testament writers for its semantic content and in particular for its semantic

difference from eros.<sup>1</sup> Whether or not this was the case,<sup>2</sup> it was indeed in the context of the Hellenistic eros-pieties that John the evangelist gave ontological status to an association that was present in the Synoptic Gospels and in the writings of St. Paul: "God," John wrote, "*is* Agape." Peirce is emphasizing the traditional distinction between eros and agape but suggesting that agape, like eros, has also historically been considered a principle of evolution.

Peirce refers to both the first epistle of John and the Gospel of John. His first two quotations, from the epistle (1 Jn. 4:16 and 1 Jn. 1:5), cite the equation of God with agape and John's claim that in God there is light without darkness. The two passages in conjunction seem to suggest to Peirce that "as darkness is merely the defect of light, so hatred and evil are mere imperfect stages of agape and *agapetos*" (6.287). Peirce finds further support for this reading from the Gospel claim that to walk in darkness is itself the punishment for refusing God's love (Jn. 3:17-19). Whereas Empedocles had pitted Eros against Strife to explain evolution and dissolution, agape, it seems, is an evolutionary principle in itself. It is thus the "Anteros," a "love which embraces hatred as an imperfect stage of it" (6.287). Peirce's makes the same point through an appeal to Henry James Sr.'s Swedenborgian discussion of the problem of evil: God, agape,

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<sup>1</sup> See James Barr's "Words for Love in Biblical Greek," p. 5. Peirce is actually referring, in his first two quotations, to the first Epistle of John, not the Gospel of John. John makes the equation between God and Agape at I John 4: 8 and I John 4:16. For a closer analysis of Peirce's discussion of John see Janice M. Staab's *Agape: Peirce's Abduction Concerning the Growth of Intelligibility*, pp. 101-107.

<sup>2</sup> This issue of the role of semantics in the choice of agape (and *agapan* in particular) is addressed in more detail below. See footnotes 8 and 9.

*must* have something other than itself to love, otherwise God's love would be self-love.<sup>3</sup>

God must create evil so that he can love evil, so that he can transform that which is hostile into that which is harmonious. For it is of the very nature of agape to foster growth, and so God needs an object other than himself. The result of Peirce's brief exegesis is a philosophical articulation of the "formula" of agape: "The movement of love is circular, at one and the same impulse projecting creations into independency and drawing them into harmony" (6.288). Peirce will eventually return to this formulation of agape in order to make his comparison of agape with growth by habit-taking.

Peirce concludes this section by noting that "Everybody can see that the statement of St. John is the formula of an evolutionary philosophy, which teaches that growth comes only from love" (6.289). This might be somewhat optimistic. Although I do believe Peirce's claim here is accurate--that agape has been understood as a formula for growth or a principle of evolution--the historical connection between growth and agape cannot be fully understood without a fuller picture of Christian agape.

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<sup>3</sup> Henry James, Sr., the Sweedenborgian, was a life-long influence on Peirce. As Joseph Brent points out, this influence can be traced back to Peirce's college days (Joseph Brent, *Charles Sanders Peirce: A Life*, p. 337). Murray Murphey notes that in Peirce's brief discussion of the problem of evil we can see a possible influence of Henry James, Sr. on Peirce's much maligned philosophy of the self. James writes: "The sole possible basis of identity for the creature, the only conceivable ground for attributing distinctive character or selfhood to him, lies in his being in himself a direct contrast to the creator: empty where he is full, impotent where he is omnipotent, ignorant where he is omniscient, evil where he is good" (Henry James, Sr., *Substance and Shadow*, p. 433; as quoted by Murray Murphey, *The Development of Peirce's Philosophy*, p. 351). These themes are echoed in some of Peirce's less satisfying remarks about the self, though they are not always in an explicitly religious context: "Now you or I—what are we? Mere cells of the social organism. Our deepest sentiment pronounces the verdict of our own insignificance. Psychological analysis shows that there is nothing which distinguishes my personal identity except my faults and my limitations—or if you please, my blind will, which it is my highest endeavor to annihilate" (1.673). Vincent Colapietro reviews some of these passages on selfhood in his *Peirce's Approach to the Self*, p. 65, and goes on to show why they are not irreconcilable with Peirce's later discussion of self-control. Colapietro's synthesis of Peirce's various passages on the self are addressed in the final chapter.



Agape has, in fact, been associated with growth and transformation even prior to its Christian usage. The noun "agape" is a derivative of the Greek verb *agapan* which is suggestive of a "respectful or unselfish love" and which was associated with care of underlings such as children or servants in the Greek vernacular.<sup>4</sup> Christian writers have traditionally emphasized a semantic continuity between this vernacular usage and the Greek translators' usage of *agapan* and agape in the Septuagint, noting in particular that *agapan* was likely chosen because of its semantic similarity to the Hebrew *hesed* and its semantic difference from the Greek *eros*. Karl Barth writes: In the Septuagint, "the only basis one can offer for the choice of the word agape is the will at all costs not to speak about eros in designating that which was witnessed to in the texts as 'love.'" <sup>5</sup>

Whether or not this is the only explanation of its usage, it is very likely that there is some continuity between its usage in the Septuagint and its association with growth in the Greek vernacular. And thus, even if agape was itself a neologism, a creation of the Old Testament translators, both it and *agapan* would seem to be continuous with the

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<sup>4</sup> A. Viard, "Agape," *Encyclopedic Dictionary of Religion*, p. 70. James Barr, who is generally suspicious of reading theological meanings back into etymological origins, agrees: *agapan* "existed in Greek as early as Homer and already in classical times was used with senses quite close to those found in the [Septuagint] and the New Testament" (Barr, "Words for Love in Biblical Greek," p. 8). For a detailed discussion of pre-Biblical usage of *agapan* cf. C. Spicq's *Agape: prolegomene à une étude de théologie néo-testamentaire*.

<sup>5</sup> Karl Barth, *Kirchliche Dogmatik*, 836, as translated and quoted by James Barr. Barr actually quotes this passage, representative of the traditional scholarly opinion, in order to criticize it. Barr makes a case that the usage of agape in the Septuagint has little to do with its difference from *eros*. Barr cites passages such as 2 Sam. 1:26, Jer. 2:33 and Prov. 30: 15 which employ agape to denote desire or even sinful lust, and thereby concludes that the *agapan* group covered the semantic ground of *eros* and more. The *eros* group "expressed falling in love, desiring, beginning to love, or they expressed unlawful lust: but *agapan* expressed all this and a good deal more" (p. 11). Our main point, however, has to do with the continuity of *agapan* in its association with growth from the vernacular to its biblical usage. Here Barr agrees: "within the [Septuagint] the choice of *agapan* was a feature of continuity with contemporary usage, and not least of all contemporary religious usage" ("Words for Love in Biblical Greek," p. 7).

prior usage of *agapan*.<sup>6</sup> In the Septuagint we have the beginning of the history of the Judeo-Christian usage of *agapan* and *agape*--the verb appears two-hundred times and the noun appears forty times--but the association of this word group with growth extends back beyond this tradition. It seems that the Judeo-Christian usage of *agapan* and *agape* was not discontinuous with its Greek meaning.

If the connection between the Greek vernacular and the Septuagint is likely, the connection between the Septuagint and the Christian New Testament is practically certain. It is quite likely that the precedent of the Septuagint influenced these later writers to incorporate *agapan* and *agape* on a widespread basis.<sup>7</sup> It is with the Christian writings of the first century--most famously in Matthew's claim that the law may be summarized in the commandment of *agape* (Mt. 22:37-40) and in John's claim that God is *agape*--that *agape* becomes synonymous with Christianity and with the transformative power of the Christian God. As Barr notes, whereas *agapan* in the Septuagint may have denoted not only nurturing love but also erotic love, *agape*, in the New Testament, is unequivocal: The paradigm of *agape* offered in the New Testament is the love of the Christian God for his creation.

What we have in the New Testament is the general vernacular association of *agapan* with growth becoming a doctrine of spiritual growth. Within the Christian tradition, as Peirce rightly understood, *agape* does indeed function as an evolutionary principle. Succinctly put, *agape* incarnate not only creates its object; it transforms its

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<sup>6</sup> *Ibid.*, p. 8.

object. In a number of historical renditions of Christian grace, in particular, we see versions of the claim that agape is a transformative power. Anders Nygren writes:

God created us men without our aid, without any doing or deserving or desiring of ours. . . . If we ask what moved Him to do this, the answer is that he loved us –with that unmerited and unmeritable love which is Agape . . . . But the full depth of divine Agape is not seen until it appears in 'the grace of our Lord Jesus Christ'. Here God's love is displayed in the redemption of lost, sinful men, who not only could not save themselves from sin and death, but deserved the very opposite of salvation . . . . Both the creation and the redemption, therefore, are the work of "grace" or free, generous Agape.<sup>8</sup>

Elsewhere Nygren writes:

When [the human] acts on the basis of this natural disposition, nothing really worthy can result. If this is to happen, his inward man must be transformed. But such a transformation is outside the range of his own possibilities: he has no power to produce in himself this quality of love, this "habitus" of love. It can only be given to him as a gift of divine grace. When God gives a man His Holy Spirit, the miracle happens, and God's own Caritas is shed abroad in his heart. At its deepest, grace means "the infusion of love." . . . Through this act of Divine grace, man's whole existence is totally changed.<sup>9</sup>

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<sup>7</sup> The New Testament uses the verb 141 times, the noun 117 times, and the adjective (*agapetos*/beloved) 61 times.

<sup>8</sup> Anders Nygren, *Agape and Eros*, xii. My use of Nygren below will be extensive, taking him as an authority for our purposes of explicating the Christian concept of agape. Nygren's *Agape and Eros* is generally recognized as the most extensive, important and influential treatment of agape in international theology. It is also controversial. Some of Nygren's critics have complained that the conceptual purity of his "agape motif" and "eros motif" has been bought at the expense of historical accuracy.

<sup>9</sup> Nygren, *Ibid.*, p. 623. Although *caritas* is not identical to agape, it functions identically here. It is that which makes growth possible. We will discuss the relation of *caritas* to agape in the final section below.

Nygren sees this dependence of humanity on divine agape for salvation to be the very essence of Christianity, distinguishing it from the more legalistic redemption of Judaism. Jonathan Edwards made a similar point:

The adverse scheme of justification supposes that we are justified by our works, in the very same sense wherein man was to have been justified by his works under the first covenant. . . . But the great and most distinguishing difference between that covenant and the covenant of grace is, that by the covenant of grace we are not thus justified by our own works, but only by faith in Jesus Christ.<sup>10</sup>

Augustine and Aquinas likewise agree that God's love, manifested as grace, is a necessary condition of the full transformation of the sinner.<sup>11</sup> Without doing justice to the complexity of the Christian notion of grace or to the complex history of agape—for the idea of agape itself has evolved as it has incorporated various Hellenistic and Judaic influences—we may at least confirm for Peirce that the transformative power of agape has been a significant philosophical contribution of the Christian tradition. In the final section of Chapter Three, I will argue that Peirce's own specific version of agape is in fact quite similar to the version of Christian love offered in Augustinian *caritas*.

As we have noted, however, it is not simply agape's status as a generic evolutionary principle that made it significant for Peirce. Peirce saw similarities to his theory of growth in the specifics of the Christian understanding of agape, in its logic or “formula.” Eros too has been historically understood as a principle of development. In

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<sup>10</sup> Jonathan Edwards, "Justification by Faith Alone," p. 91-92.

Peirce's categorization of agape as the "Anteros," he is, with his own peculiar rhetorical charm, appealing to the traditional distinction between agape and eros and suggesting that his understanding of growth is more obviously agapastic than erotic.<sup>12</sup> Although I think that Peirce's implied "theory of agape" actually transcends this traditional distinction, a review of a number of important differences between eros and agape will help to clarify what is distinctive in agape as a transformative power. I will make some admittedly superficial appeals to the texts of Plato in order to help contrast a traditional rendition of eros with the agape of Biblical Christianity.<sup>13</sup>

Eros is, famously, an acquisitive love. Eros is the love of desire, the love which is the product of lack:

[W]hoever feels a want is wanting something which is not yet to hand, and the object of his love and of his desire is whatever he isn't, or whatever he hasn't got—that is to say, whatever he is lacking in.<sup>14</sup>

This is the case regardless of the nature of the object. Vulgar eros differs from Heavenly eros, not because of a difference in the nature of the eros but because of a difference in the nature of the beloved. Indeed, much of Plato's corpus can be read as

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<sup>11</sup>Speaking of Aquinas, Nygren writes, "Merit is required of man, but he cannot achieve this merit unless Divine grace comes to his aid: without grace, no merit—this is the general view of developed Medieval theology . . ." *Agape and Eros*, p. 622.

<sup>12</sup>One traditional basis for this distinction is the Christian New Testament. As noted above, while agape signified not only cherishing love, but other types of love in the Greek translation of the Old Testament, in the New Testament, agape is unequivocal. Barr, "Words for Love in Biblical Greek," p. 13.

<sup>13</sup>As Nygren notes, it was Plato who essentially defined the "eros motif" not only for Western philosophy, but also, thorough Neoplatonism, for Western religious thought. For this reason he too uses Plato as representative of the eros motif, *Agape and Eros*, p.162. I will suggest below that this eros motif is present in Peirce's particular version of agape.

<sup>14</sup>Plato, *Symposium*, 200e2-5.

an attempt to show us not what the proper sort of love is, but what the proper object of this love is.

Agape, to the contrary, is a love that gives rather than seeks; it is a love of fullness rather than lack. At its ideal limit, it is the overflowing, sacrificial love of the Christian God. St. Paul writes:

But God commendeth His own agape toward us, in that while we were yet sinners, Christ died for us . . . . For if, while we were enemies, we were reconciled to God through the death of his Son, much more, being reconciled, shall we be saved by his life.<sup>15</sup>

And, most famously, in the Gospel of John:

For God so loved the world, that he gave his only begotten son, that whosoever believeth in him should not perish, but have everlasting life<sup>16</sup>

The sacrifice of the son of the Christian God is the paradigmatic act of agape. It is both the most dramatically striking and most historically influential depiction of agape. Indeed, viewed from a distance, we are once again tempted to suggest that the central philosophical contribution of Christianity is a claim about the relation between agape and growth: The fallen human is saved, redeemed, transformed by the paradigmatic act of agape, the sacrifice of God himself. Agape is "a love that gives itself away, that

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<sup>15</sup> Romans 5:6-10.

<sup>16</sup> John 3:16. Also see, I John 3:16; "Hereby we perceive the love of God, because he laid down his life for us."

sacrifices itself, even to the uttermost."<sup>17</sup> Whereas eros seeks out of lack, agape gives out of fullness and thereby transforms the beloved.

A second, related point of difference is that whereas the end of eros is the good of the lover, the end of agape is the good of the beloved. For this reason eros is often referred to as an egocentric love, and, indeed, has been reduced by Freud and others to self-love. As Nygren points out, it is the egocentric nature of eros that accounts for its intimate relationship with *eudaimonia* in Plato:

Diotima: What is it that the lover of the good is longing for?

Socrates: To make the good his own

Diotima: Then what will he gain by making it his own?

Socrates: . . . He'll gain happiness

Diotima: Right . . . for the happy are happy inasmuch as they possess the good, and since there's no need for us to ask why men should want to be happy, I think your answer is conclusive.<sup>18</sup>

The erotic ascent is motivated by the individual soul's desire for happiness. The entire Platonic quest for wisdom is ultimately an erotic quest of the soul for its own satisfaction in the vision of the Good. Agape, however, seeks the good of the beloved. Agape is an unselfish love, a love so opposed to self-love that Henry James, Sr. could have suggested that evil was necessary to save God from the sin of self-love, for "the very distinction of [divine] Love, regarded as infinite or pure of all infirmity, is that it is utterly devoid of self-love."<sup>19</sup>

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<sup>17</sup> Nygren, *Agape and Eros*, p. 118.

<sup>18</sup> Plato, *Symposium*, 204e-205a, as quoted by Nygren, *Agape and Eros*, p.180 fn.1.

<sup>19</sup> Henry James, Sr. *Substance and Shadow*, p. 442, as quoted by Murphey, *The Development of Perice's Philosophy*, p. 351.

A third and final point of contrast will ultimately be the most relevant point of distinction for our purposes. Whereas eros chooses its object based on the perceived merit of its object, agape takes no account of the merit of its object. The love of desire is based on perceived value. It is a response to perceived value and so it is necessarily conditional upon the perceived merit of the beloved. Agape, to the contrary, takes no account of the value of its object.

This is best exemplified in Christianity's status as the religion of the sinner. Nygren, echoing Edwards above, emphasizes this feature of agape as that which distinguishes it from the less tolerant love of the Jewish God:

God's attitude to men is not characterized by a *justica distributiva*, but by agape, not by retributive righteousness but by freely giving and forgiving love . . . . [The love of the Old Testament God] signifies at most that God is faithful to his Covenant despite man's unfaithfulness, provided that man returned to the covenant.

The Christian God, as if to distinguish himself from the God of the first covenant, declares "I came not to call the righteous, but sinners,"<sup>20</sup> and in so doing makes obvious that agape is not earned, not merited. Agape is indifferent to value and so it cannot be won. The sacrifice of the son of God, the association of the son of God with sinners, the parables of the prodigal son or the laborers in the vineyard--all these narratives supplement our philosophical understanding of agape: The transformative power of agape is given without concern for value.

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<sup>20</sup> Mark 2:17



Indeed, if we recall that it is agape which transforms the sinner, that initiates salvation by bringing the sinner into fellowship with God, it becomes clear that agape actually creates value. The Christian God not only creates the world out of love, he also re-creates his creation, bestowing value on that which has no claim on him. The human is not owed salvation. It is not loved because it has value. It has value because it is loved. Again, Nygren sees this as a fundamental point of distinction between Christianity and Judaism. Obedience to *nomos*, law, does not oblige the Christian God.

A practical result of this distinction regarding value will be of particular importance for us. A result of the concern of eros for value is that the beloved is only loved so long as he or she has value for the lover. When this value is exhausted or it disappears, eros towards the beloved ceases. Recall the erotic ascent of the *Symposium*. Each object of love is initially desired for its perceived merit. Once the beloved is no longer attractive, no longer has value for the lover, the lover discards it:

And if, my dear Socrates, Diotima went on, man's life is ever worth the living, it is when he has attained this vision of the very soul of beauty. And once you have seen it, you will never be seduced again by the charm of gold, of dress, of comely boys, or lads just ripening to manhood; you will care nothing for the beauties that used to take your breath away and kindle such a longing in you . . .<sup>21</sup>

The practical result for the beloved is that erotic love, in practice, is not constant. Erotic love is conditional. Erotic love, premised on a perceived value in the beloved, remains

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<sup>21</sup> Plato, *Symposium*, 211d

only so long as the perception of value remains. When the object changes or the desires of the lover change, erotic love towards the object ends.

Agape's indifference to merit, to the contrary, translates into a practical constancy for the beloved. It is a lack of concern for merit in principle that translates into an unconditional love in practice. Because agape takes no initial account of the merit of its object, it has no reason to withdraw its love if its object changes. Agape is given freely without account of the value of its object and it is therefore sustained regardless of changes in the beloved. Even the sinner--especially the sinner--is the object of the Christian God's love.

This difference between the conditionality of eros and the unconditionally of agape is most important for understanding the types of growth or evolution that eros and agape foster in the beloved. Eros, as conditional, is coercive. If the beloved changes, or if the beloved can not continue to make himself a perceived value to the lover, the eros disappears. As a result, the beloved is *forced* to make the lover's ends his own if he wishes to continue being loved. The beloved must forgo the integrity of his own growth for the sake of satisfying the needs of the lover's eros. It is commonly noted that in eros, the desire of the lover makes the lover a slave to its object. This is perhaps most vividly portrayed in Plato's depiction of the tyrannical soul. What is less obvious is that any animate object of erotic love must, if he wishes to remain loved, continually reposition himself as an object of desire for the lover. Ironically, it turns out that the beloved of eros, like the lover of agape, also makes a sacrifice of himself. The object of eros, however, must sacrifice his own integrity to remain in the space of conditional

erotic love. This erotic element, M. Scott Peck notes, is often the primary feature of romantic love:

The myth of romantic love tells us, in effect, that for every young man in the world there is a young woman who was "meant for him" and vice versa. . . . Should it come to pass, however, that we do not satisfy or meet all of each other's needs and friction arises and we fall out of love, then it is clear that a dreadful mistake was made, we misread the stars, we did not hook up with our one and only perfect match, what we thought was love was not real or "true" love.<sup>22</sup>

When the erotic desire changes or the beloved no longer remains desirable, the "true" love ends. This is the inevitable fate of any romantic relationship founded solely on eros. To remain an object of this truncated version of romantic love, one must continually become that which is desired by the other. This conditionality follows necessarily from the fact that erotic love is based on the merit of its object. The result is that the "growth" of the beloved will not be the beloved's growth at all. It will be determined by the lover. For the ends of the beloved must be one with the desires of the lover. Otherwise the beloved is no longer valued.

Because agape is not predicated on merit, the growth agape fosters is respectful of the integrity of its beloved. Agape loves and continues to love even that, as Peirce notes, which is hostile to it. Agape will not attempt to force or coerce its object into change through the threat of the withdrawal of its care and support. In agape's tolerance, it allows its object a freedom to be whatever it is in its integrity, without

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<sup>22</sup> M. Scott Peck, *The Road Less Traveled*, p. 91.

coercion. The result is that the beloved inherits a freedom to pursue her own ends, even when these ends are contrary to those of the lover. In choosing not to threaten its withdrawal, agape gives the beloved the freedom to betray or deny it, and thus the freedom to pursue and develop her own ends.

This brings us to what might be called the paradox of agape: Agape brings about growth in a direction. The agape of the Christian God is instrumental in bringing the soul of the sinner into harmony with the will of God. And yet this transformation is accomplished in part by virtue of the freedom that agape allows its object for a hostility to its ends. We have a principle of evolution which affects the nature of free choice by virtue of the fact that it tolerates free choice. On the one hand, agape refuses to coerce its object. Any transformation it effects is accomplished without determining the ends of its object. Its love is given regardless of value and so there the beloved is not forced into a transformation of any kind. On the other hand, agape somehow manages to guide the growth of its object, to affect the free choices of the beloved.

Agape tends, in fact, to produce agape. The Christian sinner is transformed by God's love. The sinner ultimately grows to desire to share in and become harmonious with agape. In the Christian tradition we see that God's love for that which is hostile, the sinner, transforms the sinner into one who herself agapastically loves that which is hostile: The divine agape for the sinner becomes the human agape for the enemy.

Nygren writes:

[N]eighborly love is born of God's Agape and is an outflow from its creative life. Just as God's love is a love for sinners, so the Christian's love is a love for enemies.<sup>23</sup>

The paradox of agape is that agape creates agape though it does not demand agape. God's love of the hostile sinner has the power to transform the sinner into a being capable of showing agape towards human hostility. Despite its restraint, or perhaps even because of its restraint, agape has the power to transform that which is hostile to agape into a vessel of agape.

Explaining how this paradox of agape seems to be at work in Peirce's theory of growth by habit-taking will be one of our primary tasks below. If there is a clue in the Christian tradition about how agape brings about this paradoxical transformation, it would seem to lie in attractiveness of agape itself. The sinner finds herself attracted to the ends of her loving God. The sinner "constrained by the agape of Christ . . . carries out God's work, bears the fruit of the spirit. The fruit of the spirit, however, is first and foremost love."<sup>24</sup> As Nygren notes, speaking of the grace of agape:

Unlike the law, it does not merely enjoin the good; *it awakens delight in the good*. Grace does not destroy free will, but simply gives it a new object and so a new direction and aim.<sup>25</sup>

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<sup>23</sup> Nygren, p. 102. As Nygren translates, St. Augustine writes, "The Grace of God makes a willing man out of an unwilling one." (St. Augustine, *Opus imperfectum contra Julianum*, Bk.3, P. 122) as quoted by Nygren, *Agape and Eros*, p. 528, fn3.

<sup>24</sup> *Ibid*, p. 133

<sup>25</sup> *Ibid*, p. 528. Italics added.

The grace of God, which is a free expression of his agape is, by virtue of its very constancy and tolerance for what is hostile, itself an argument for its attractiveness.

The paradox of agape is that it is through the tolerance of agape, through the freedom it allows, through its own refusal to coerce, it effects the transformation of its object. It is primarily because of the attractiveness of the undeserved love that is agape that the beloved of agape is warmed into harmony with agape.

Peirce's initial characterization of agape as principle of growth can now be understood in context. Although the specifics of Peircean agape will only become clear as we develop the technical aspects of habit-taking and Lamarckianism below, we can see that Peirce's appeal to Christianity as a general intellectual tradition that considers agape to be a principle of growth is not unwarranted. Agape, in this tradition, is a power that transforms that which is hostile into that which is harmonious with its own ends. For the Christian God--in the love of the sinner--loves especially that which is hostile, and the Christian herself, through her love of the enemy, harmonizes her own ends with the ends of this freely given and uncoercive love.

Further, Peirce was correct to note that, despite their differences, both eros and agape are indeed evolutionary principles. Both eros and agape are, at least in their most representative philosophical and religious contexts, doctrines of salvation. In both cases, they are formulas of growth. As hinted at above, however, an important difference between the two is that agape primarily brings about the growth of the beloved whereas eros, if it does bring about growth, brings about the growth of the lover. In the erotic motif, desire finds its way from that which seems valuable to that

which is valuable, from beauty in the body and institutions to Beauty itself. In eros it is the lover that grows, at least the truncated sense of “progressing” towards some fixed end.<sup>26</sup> Eros does not bring about the growth of the beloved. It tends to coerce the beloved into becoming a means to the lover's ends. In agape, however, it is primarily the beloved that grows. In the paradigmatic example of agape, the lover is entirely self-sufficient, and the cherishing love it offers effects a transformation of the beloved. In agape, it is the selflessness of another that effects the self's salvation. Whereas the Good is unmoved in the entire process of erotic salvation, it is God himself who initiates agapastic salvation. As Nygren points out, we might thus consider agapic salvation to be the result of the superior descending to the inferior--God descends to the human and gives that which is undeserved and undeservable--and erotic salvation to be the result of the inferior striving towards the superior. In their seemingly irreconcilable ways, they are each modes of salvation. In philosophical terms, they are each principles of evolution.

This said, it may well be the case, however, that eros still has a role to play in growth. Although eros may thwart the growth of the beloved, it may be that the eros of the lover is integral to his or her own growth. Indeed, it may be that agape itself can have an effect on one's tastes as an erotic lover. These two principles of evolution may indeed work together as one both receives love and begins to grow. We will return to this after an in-depth discussion of agapasm.

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<sup>26</sup> See Carl Hausman, “Eros and Agape in Creative Evolution—A Peircean Insight,” pp. 15-27.

## II. Historical Context

We shall next address the issue of *why* Peirce was interested in associating this particular principle of growth with his own theory of growth by habit-taking. Peirce's motivation for making a connection between agape and growth is in fact explicit. Peirce is attempting to justify a general characterization of growth that will serve as an alternative to the understanding of growth that had become widely popular amongst his contemporaries, that progress is the result of individuals in ruthless competition.

As we would expect of a synechist, Peirce rightly understood Darwin's evolutionary theory, and in particular his theory of natural selection, to be part of broader intellectual context.<sup>27</sup> Models of growth similar to Darwin's theory of evolution by natural selection formed the context in which Darwin's thesis was offered.<sup>28</sup> As Peirce notes, the Belgian anthropologist Lambert Quetelet had applied the principles of statistics to human populations about twenty years before the publication of *Origin of Species* (6.297). Darwin did indeed read Quetelet, and it was in

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<sup>27</sup> Cf. 6.387, 6.293. Darwin himself did not claim that natural selection was the only mechanism at work in evolution: See *Origin of Species*, p. 30. Peter Bowler discusses his intellectual context in some detail in *Evolution: The History of an Idea*, pp. 90-108.

<sup>28</sup> Darwin had formulated the essentials of his theory almost twenty years before he and Wallace published in *The Journal of the Linnaean Society* in 1858.



fact Quetelet's work that led Darwin to Malthus.<sup>29</sup> Malthus' *Essay on the Principle of Population* was a direct influence on Darwin, though how important it is remains a major issue of contemporary historical debate. Malthus had shown, convincingly to Darwin's mind, how populations are pressured and kept in check by limited resources. Darwin, unlike Malthus himself, saw the evolutionary consequences. Within an environment that cannot sustain all its members, those that are best adapted to the environment will be the most likely to reproduce (in large part because they have the best chance of survival). Thus the traits best adapted for survival and reproduction would tend to be passed on and those less well-adapted would tend to not be selected. In Darwin's own words, from his autobiography:

In October 1838, that is, fifteen months after I had begun my systematic inquiry, I happened to read for amusement Malthus on Population and being well prepared to appreciate the struggle for existence which everywhere goes on from long-continued observation of the habits of animals and plants, it at once struck me that under these circumstances favourable variations would tend to be preserved, and unfavourable ones to be destroyed.<sup>30</sup>

Malthus' population principle—the principle that the demand for food will always outstrip the supply of food—suggested to Darwin how an environment of competition might hold promise for altering the characteristics of a group over time. Indeed, Darwin went so far as to note that his chapter on the "Struggle for Existence"

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<sup>29</sup> Bowler, *Evolution: The History of an Idea*, p. 173.

<sup>30</sup> As quoted by Monroe Strickberger, *Evolution*, p. 27.

was "the doctrine of Malthus, applied to the whole animal and vegetable kingdoms."<sup>31</sup> The very phrase "struggle for existence" was taken from Malthus, though some have argued that Darwin's selective emphasis on struggle in Malthus is unfair to the general tenor of Malthus' work.<sup>32</sup> Peirce, we might note, correctly speculated that Darwin was familiar with the work of Thomas Malthus.<sup>33</sup> Along with Quetelet and Malthus, the philosophy of Herbert Spencer was part of Darwin's intellectual context. In 1850, nine years before the actual publication of *Origin of Species*, Spencer had written, speaking of human societies, "If they are sufficiently complete to live, they do live, and it is well that they should live. If they are not sufficiently complete to live, they die, and it is best that they should die."<sup>34</sup> Darwin was familiar with the broad evolutionary philosophy of Spencer, and actually invoked his name in the conclusion to *Origin*. Finally, Utilitarianism and various *apologias* for laissez-faire capitalism are also generally understood to have influenced Darwin. It is certain that Darwin read Adam Smith amongst other authors in political economy. Peirce's historical sense is evidenced at last by Alfred Russel Wallace's formulation of a theory of natural selection in essentials the same as Darwin's. He too reported being influenced by Malthus.

Although Peirce seems to have been unaware that Darwin's thesis was formulated well before 1859, Peirce was correct to see Darwin's work as continuous

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<sup>31</sup> Darwin, *Origin of Species*, p. 29. Darwin read Malthus in 1838 and had created an abstract for *Origin* by 1842.

<sup>32</sup> Bowler, *Evolution: The History of an Idea*, for example, p. 174.

<sup>33</sup> At 6.297 and at Peirce Papers, #954, as noted by Vincent Potter, *Peirce on Norms and Ideals*, p. 176 fn.

<sup>34</sup> Herbert Spencer, *Social Status*, 1850, pp. 414-415, as quoted by Henry Morris, *The Long War Against God*, p. 55.

with its context--not only with the contemporary scientific community's enchantment with the relation between chance and order in statistical law, but also with the general fascination about competition. This said, it would be a mistake to assume that Darwin simply applied these ideas to the organic realm, adding only a wealth of evidence. Adam Smith thought that competition was part of a natural state of human interactions that would produce a harmonious and flourishing society. Political Economists of the time were generally of the opinion that competition was not meant to eliminate the least able, but to encourage all to contribute to their utmost ability.<sup>35</sup> Malthus, in the first edition of his major work, saw the population principle as a divine institution, and he only employed the term "struggle for existence" in the limited contexts of primitive tribes.<sup>36</sup> Spencer was convinced that Lamarck's evolutionary theory was preferable to Darwin's theory of natural selection. Although Peirce insightfully points out that *The Origin of Species* may have enjoyed a favorable reception because of its context, he probably overstates his case when he claims that "Darwin merely extends politico-economical views of progress to the entire realm of animal and vegetable life" (6.293). Without minimizing the emphasis on competition as a principle of growth in the 19th century leading up to Darwin, it would be a mistake to think that Darwin simply inherited and applied these ideas to the organic realm.

Once Darwin's thesis was offered in its 1859 version and popularized, however, the temptation to explain all growth in Darwinian terms led to applications of the

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<sup>35</sup> Bowler, *Evolution: The History of an Idea*, p. 101.

<sup>36</sup> *Ibid.*, p. 102.

principle of natural selection far beyond the realm of organic evolution. Darwin's ideas were generalized, mottoes from and about Darwin's theory were popularized, and Darwin's theory was put to use in ways that Darwin never considered. By 1892, the widespread popularity of "social Darwinisms" was enough to cause Peirce to question the seemingly irrational exuberance for Darwin's hypothesis. Peirce would refer to this belief in ruthless competition as a principle of evolution as the "Gospel of Greed," and he predicted dire consequences for a society which practiced it:

Soon a flash and quick peal will shake economists quite out of their complacency, too late. The twentieth century, in its later half, shall surely see the deluge-tempest burst upon the social order—to clear upon a world as deep in ruin as that greed philosophy has long plunged it into guilt.  
(6.292)

Of course, some fifty years later Darwin's theory of organic evolution would be explicitly invoked as an intellectual pillar for the Nazi eugenic and euthanasia programs. This, then, was the context in which Peirce wrote "Evolutionary Love."

Peirce, along with most of his contemporaries, saw that this model of progress pervasive in the 19th century was difficult to reconcile with the traditional Christian "model" of progress. In our own cultural context it might be easy to forget that perhaps the *least* problematic aspect of Darwin's thesis for those well-versed in the history of Christianity was the very doctrine of evolution itself. The doctrine of fixity of species had no essential connection to Christian doctrine, but was largely the result of the influence of Aristotle on Christian thinkers. Reinhold Niebuhr notes that the resistance of religious institutions was so "stubborn and pathetic" precisely because

Christianity had for years combined the Biblical doctrine of creation with the Aristotelian doctrine of fixed species.<sup>37</sup> This was not a necessary connection. In fact, St. Augustine and his followers, for example, had previously adopted the Stoic doctrine of "*rationes seminales*,"<sup>38</sup> a doctrine which essentially held that God created species as potentialities, as "seminal reasons," which gradually evolved and developed in time. This doctrine of evolution by divine plan was, ironically, adopted by Augustine precisely in order to accommodate scripture. Specifically, Augustine wanted to reconcile the first creation story of Genesis 1, which stated that the act of creation took place over six days, with the book of Ecclesiasticus, which stated that God created all things simultaneously. The doctrine that God created potentialities which evolved into various species, including humanity, was intended to reconcile the creation of everything at once (as potentialities) with the gradual creation described in Genesis.<sup>39</sup> Darwin essentially forced Christian thinkers to reconsider whether Aristotelianism and Biblical doctrines of creation were indeed complementary, but this in and of itself may have been the least threatening aspect of Darwin's hypothesis. Peirce, of course, was of the opinion that "a genuine evolutionary philosophy . . . is so far from being antagonistic to the idea of a personal creator, that it is really inseparable from that idea" (6.157).

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<sup>37</sup> Reinhold Niebuhr, "Christianity and Darwin's Revolution," p. 31.

<sup>38</sup> Vincent Potter, *Charles S. Peirce on Norms and Ideals*, p. 172.

<sup>39</sup> A worthy topic for future consideration would be a comparison of Augustine's *rationes seminales* with the Platonic Forms in Peirce's cosmogony.

It was, as Peirce saw, the *process* by which evolution took place that seemed to do the most violence to the Christian world-view. Peirce understood the theories that had been generalized from Darwin's thesis of natural selection as representative of a model of growth that took progress to be the result of individual struggle and competition. Darwin himself wrote:

Thus, from the war of nature, from famine and death, the most exalted object which we are capable of conceiving, namely, the production of the higher animals, directly follows.<sup>40</sup>

How is one to reconcile a belief in a loving and benevolent God with Darwin's theory of progress through the "war of nature?" Not the hypothesis of evolution *per se*, but the hypothesis of evolution by natural selection is what Peirce thought was most difficult to reconcile with the Christian God.<sup>41</sup> The mechanism of evolution, of growth and progress, was understood by Darwin and his followers to be struggle and competition between organisms pursuing individual goods. As Darwin learned in part from Malthus, the context of struggle and competition is necessary for progress. There is no

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<sup>40</sup> Darwin, *Origin of Species*, p. 450.

<sup>41</sup> The horror that developed at the apparent conflict between Christian progress and Darwinian growth is captured vividly in the following: "The idea that a loving, wise, and powerful God used evolution—with its 'struggle for existence' and 'survival for the fittest' as his method of creation is grotesque! Evolution is the cruelest, the most wasteful and most irrational method of 'creation' that could ever be imagined, not even to mention the fact that it is scientifically untenable. The postulated suffering and death of multiplied billions of animals in the course of evolutionary 'progress' from amoeba to man is a libel against the character of the Creator . . . Evolution may make some sense in the context of atheism, but it certainly does not fit Christian theism!" Henry Morris, the author of the above, is a creationist, and so he is opposed not merely to the doctrine of natural selection, but to any version of evolutionism. His horror here, though, vividly captures the difficulty that natural selection poses to the Christian theist. Henry M. Morris, *The Long War Against God*, p. 58. Another issue which was of historical importance but not obviously important for Peirce was the status of the soul after Darwin.

evolution if there is no need to struggle and compete. Whereas the Christian "model" understood progress to be the result of making other's ends one's own, a movement towards a greater and greater sympathy between individuals, the quasi-Darwinian model took progress to be the result of individuals satisfying their own desires at others' expense. Peirce understood the essence of this conflict, which he named the conflict between the "Gospel of Christ" and the "Gospel of Greed." When we consider also that Peirce was writing within the intellectual context of Unitarianism, a religious perspective that looked specifically to scientific knowledge about nature for an understanding of God's purposes, then we see how this process of evolution struck at heart of Christianity. This was not simply a matter of doctrine, a matter of dogma. This was a claim about the natural world that seemed absolutely irreconcilable with the existence of a benevolent creator.<sup>42</sup> So if the main thread of argument in "Evolutionary Love" is to show the similarity between habit-taking and agape, the main motive for examining such a connection was explicit: Peirce wanted to question the fashionable opinion of his context which claimed that all growth is the product of a generalized "war of nature."

All this raises a reasonable suspicion: The temptation here, considering that Peirce was explicit in his attempt to provide an *apologia* for Christian agape in the face of encroaching social Darwinisms, is to dismiss this article as one occasion where

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<sup>42</sup> Hookway, *Peirce*, p. 5. For example, 8.168: "if we cannot understand God's mind, all science, it is said with some color of justice, must be a delusion and a snare." Also, at 6.502: "[S]cience . . . is proof conclusive that, though we cannot think any thought of God's, we can catch a fragment of this thought, as it were" (6.502).

Peirce's desire to accommodate both science and religion simply got the best of him.<sup>43</sup> It is tempting to read "Evolutionary Love" simply as a response to the distasteful implications of natural selection and social Darwinism. This, I think, would be a mistake. We must distinguish two different claims. On the one hand, it would be a falsification of Peirce's character and his philosophy to deny that religious considerations played a role for him in hypothesis formation and verification. Surely any hypothesis that was scientifically respectable and capable of satisfying our religious instinct would be preferable to one with equal scientific support. On the other hand, however, it is important to realize at the outset that Peirce has *not* constructed a general theory of growth in order to provide a Christian alternative to the Darwinian model. What we have at the heart of "Evolutionary Love," as far as Peirce's purposes are concerned, is a comparison of the Christian model of growth with his habit-taking model of growth, and there is no reason to think that this habit-taking model was manufactured to facilitate such a comparison. There is nothing to suggest, even in the two years of the *Monist* series leading up to "Evolutionary Love"--where Peirce's understanding of habit-taking seems to be univocal throughout--that Peirce had any intention of creating a model that was amenable to a comparison with agape. Indeed, his concern throughout is with the observational and logical arguments for habit-taking as a model of cosmic growth. The arguments he offers for his model and against other models in "The Doctrine of Necessity Examined" and "Man's Glassy Essence," for

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<sup>43</sup> See Raposa's *Peirce's Philosophy of Religion*, pp.7-34, for an examination of Peirce's "Scientific Theism."



example, were fairly obviously meant to convince that Peirce's thesis was scientifically respectable. While it may be that there are earlier passages which foreshadow the eventual appearance of agape in Peirce's philosophy,<sup>44</sup> there is nothing, in short, to suggest that Peirce stacked the deck.<sup>45</sup>

This is not to deny, first, that there is an explicit connection in Peirce's philosophy between realism and theism which certainly affected the sort of hypotheses he was likely to entertain. Peirce became more and more committed to the reality of objective generality as his intellectual career progressed, and his theory of habit-taking provided an explanation for both the reality and origin of objective generals. Thus the realism that habit-taking offers is admittedly more compatible with theism than nominalism: "Leibniz, the modern nominalist *par excellence*," Peirce writes, "will not admit that God has the faculty of reason; and it seems impossible to avoid that conclusion upon nominalistic principles" (5.52). As Raposa explicitly notes, Peirce

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<sup>44</sup> Hausman has suggested that there are intimations of agape that precede "Evolutionary Love" in this *Monist* series, noting in particular Peirce's claim in "The Doctrine of Necessity Examined" that "there is probably some agency by which the complexity and diversity of things can be increased" (6.58). Hausman, *Charles S. Peirce's Evolutionary Philosophy*, p. 16. Elsewhere, Hausman traces back the theoretical origins of agapastic growth to texts as early as "The Fixation of Belief" and "How to Make our Ideas Clear" (Hausman, "Eros and Agape in Creative Evolution: A Peircean Insight," p. 15-16). My claim, however, is not that we cannot find intimations of agape in earlier texts, but only that the actual insight that habit-taking could be described as agapastic likely came after the theory was constructed scientifically.

<sup>45</sup> This is so, I think, even if it were the case that his model of habit-taking itself developed and changed from one less amenable to a comparison with agape to one more amenable to such a comparison. In "Design and Chance," Peirce's earliest cosmological manuscript, he wrote: ". . . my opinion is only Darwinism analyzed, generalized, and brought into the realm Ontology" (W4: 544-54). This was written in 1883. By 1891, Peirce's model of habit-taking cannot be reduced to the simple action of chance. This is itself a topic worthy of further exploration. We will discuss the precise difference between the Darwinian and Peircean model of growth below.

understood nominalism to undermine not only science, but also theism.<sup>46</sup> While I would insist that Peirce's doctrine of habit taking was, to his own mind, a scientific hypothesis that originally had no connection with *agape*, it would be foolish to try to separate the general type of hypothesis that Peirce was bound to find attractive from the full fabric of Peirce's intellectual commitments. Secondly, I would not want to deny that Peirce saw the similarity of *agape* and habit-taking as a point in favor of his theory of growth. The very connection between *agape* and habit-taking was indeed understood by Peirce to affect the plausibility of his thesis. Surely a theory of growth that could accommodate the demands of logic, science *and* religious sentiment would be preferable to one that seemed to be in violent opposition to the "natural judgments of the sensible heart" (6.292). "Evolutionary Love" therefore includes new support for his theory growth by habit-taking (to be renamed "agapasm"); for we see that this scientific doctrine is compatible with our deepest sentiments about how the cosmos ought to be progressing and this is indeed a point in its favor. The plausibility of his theory of growth does not rest solely on this quasi-religious gesture towards verification, however, but with the sum total of his logical and empirical arguments for habit-taking which precede this article. The point here is to protect Peirce from an uncritical suspicion of his motives on our part without falsifying the importance that religion and sentiment played in his intellectual life. Goudge and Wells are two example of scholars who introduce Peirce's doctrine of "Evolutionary Love" as a simple a response to

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<sup>46</sup> Raposa, *Peirce's Philosophy of Religion*, p. 20.

Darwinism. It is a response to Darwinism, but it is also a positive argument for an alternative model of growth he had been developing for years before "Evolutionary Love."<sup>47</sup>

Peirce did indeed have motives for offering an alternative to the model of growth that had captured the 19<sup>th</sup> century intellect. This said, the model of growth he offered does not seem to have been constructed with agape in mind. The plausibility of the thesis of "Evolutionary Love" rests upon the plausibility of Peirce's theory of habit-taking in itself and the plausibility of making a connection between this theory and Christian love. We have examined agape in some detail. It is now time to consider Peirce's theory of growth by habit-taking.

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<sup>47</sup> See Wells' "The True Nature of Peirce's Evolutionism," and Goudge, "Peirce's Evolutionism—After Half a Century."

## **Chapter Two:**

### **The Growth of Mind**

The Introduction of the dissertation has suggested that Peirce makes an inference from the microcosm to the macrocosm, that the cosmology is built upon a human model of growth. What, then, is the middle term in the analogy from the human to the cosmic? How does Peirce invest the cosmos with the properties of the human? For Peirce the logician, the inquirer, this middle term was mind. In the growth of mind, or, in other words, in the growth of *ideas*, we have the human experience upon which the cosmology is to be built. From the human logic we will construct a cosmic logic. From the experience of the growth of human mind in inquiry we will hypothesize an evolutionary objective idealism, a growing cosmic mind. This is a cosmos that will be described as God's great argument, a "Universe [that is] precisely an argument" (5.119), a world in which the even brute matter will retain the faintest traces of mentality (6.25). Features of human ideas will become features of physical laws. The logic of human inquiry will become the logic of cosmic evolution. What, after all, could be more amenable to the inquirer's fundamental hope in a knowable reality than a cosmos that itself shares in the fundamental logic of intellectual growth? The cosmos of Charles Peirce is, first and foremost, the cosmos of a logician.

Below we will trace the theme of the growth of mind through numerous “levels” of the Peircean cosmos. We will begin with the most familiar and intimate example of the growth of ideas, the growth of belief in human thought. I will refer to the growth of beliefs as “intellectual growth.” We will then briefly address some of Peirce’s remarks about the growth of ideas at the physiological level. Finally, we will use these more accessible examples of the growth of mind in order to lend intelligibility to Peirce’s cosmology. All of this is in preparation for a discussion of agape and its relation to growth both in the Peircean cosmology and in our own experience of the growth of the self.

The fundamental insight that allows Peirce to extend the notion of mental growth beyond its obvious parameters is the claim that ideas are habits, or rules of action.<sup>1</sup> Ideas so understood can be extended beyond the realm of beliefs--the established habits of action of the inquirer--into the physiological and physical realms. Human beliefs, physiological reflexes and physical laws all become intelligible as ideas insofar as ideas are understood as habits of action. At each level we will see that the essential mode of causality of the idea is final cause. Ideas as habits will be generalities that function through final causation. Ideas will therefore consist in their power to have some measure of teleological influence over other habits, be these other habits the relatively flexible tendencies of human belief or the hardened regularities of existence.

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<sup>1</sup> Though this point is beyond our scope of interest, it is the case that if one is looking for a point of continuity between Peirce’s notorious “transcendentalism” and his logic and pragmatism, one need look no further than the concept of habit. John F. Miller makes this point by discussing the various ways in

The growth of ideas in each case will be possible precisely because ideas are habits, tendencies rather than necessities. As habits they will allow for the spontaneous or undetermined possibility of new habits, a process that often begins when some working habit is frustrated. This process of the growth of habit, the process of habit-taking, is one with the growth of ideas, the growth of mind. Habit-taking, explicitly modeled upon the inferences by which our experience of “intellectual” growth occurs, is the essence of Peircean growth. And since the growth of habits as ideas will be growth of teleological generalities, this means that the growth of mind will itself consist in the growth of teleological generality. This is what Peirce once referred to as a “developmental teleology” (6.156). Our task below is to come to a thorough understanding of the growth of Peircean mind through habit-taking.

### **I. The Growth of Mind I: Habit-Taking in Inquiry**

For those immersed in Peirce's corpus and in his cosmological writings in particular, it is easy to forget that the most obvious example of an idea is a belief. Our beliefs are the ideas by which we navigate our way though the world. This is not to say

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which habit plays an essential role in belief, the categories, thought, fallibilism, evolution, meaning, and action. See Miller, "The Role of Habit in Peirce's Philosophy" pp. 77-85.

that all our beliefs are necessarily conscious,<sup>2</sup> or that beliefs exhaust the category of ideas at even the human level. But our beliefs, especially when they do happen to be conscious, are the ideas with which we are most familiar, and their growth is common enough that a discussion of the growth of mind at this level is considerably more accessible than at the cosmic level. We do well to recall, before we take flight into Peirce's objective idealism where most everything takes on the status of the idea, that we have access to the growth of mind at the level of human belief.

A belief, as an established and operative idea, is a habit of action. Peirce followed Alexander Bain's definition of belief as "that upon which a man is prepared to act" (5.12n.1) and claimed that "the feeling of believing is a more or less sure indication of there being established in our nature some habit which will determine our actions" (5.371). Habits are rules for action (5.397).

As *rules* Peirce understood habits to be general. The generality of belief is something Peirce stressed as pragmatism became more popular at the turn of the century through the writings of William James. In the 1905 "Issues of Pragmaticism," Peirce emphasized that the meaning of a belief is the "*conception*" of its effects (5.438). In "What Pragmatism Is," Peirce stressed that ideas cannot be confounded with the actions themselves (5.429). The belief, as the conception of what would be the case

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<sup>2</sup> Peirce gives conflicting accounts on this matter. See 5.397 (1878) vs. 5.417 (1905). For the sake of this dissertation I will need to define beliefs as conscious so that intellectual awareness can be distinguished from (though not isolated from) the feelings and desires which also play a significant role in the growth of the self.

given certain conditions, is not to be confused with the concrete actions that follow from the belief.

As rules *for action* Peirce understood these habits to be teleological.<sup>3</sup> Peirce emphasized the teleological dimension of ideas in claiming that the meaning of a belief lies exclusively in its “rational purport” (5.412). Habits of action are directed towards some end, and they govern action by bringing about specific sequences of events that would satisfy some final cause. Beliefs consist in their capacity to bring about certain general types of concrete actions in certain general types of circumstances. Peirce’s well known definition of final causality bears repeating:

. . . we must understand by final causation that mode of bringing facts about according to which a general description of result is made to come about, quite irrespective of any compulsions for it to come about in this or that particular way. . . (1.211)

Final causes, in other words, bring about a certain general type of result through a specific series of efficient causation.<sup>4</sup> Although the execution of habit, which involves efficient causation, is specific, the habit itself, functioning as a final cause, is general. Although final causes need not be worked out in the same way in each instance, they will tend to produce a certain type of action in certain conditions. A belief that wood is hard is translated, in a specific occasion, into a decision not to attempt to pass through

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<sup>3</sup> This is not to say that the purposed exhausts the category of the teleological: “A purpose is merely that form of final cause which is most familiar to our experience” (1.211).

<sup>4</sup> For in-depth discussions of final cause in Peirce, see T.L. Short’s “Peirce’s Concept of Final Causation” and Menno Hulswit’s “Teleology: A Peircean Critique of Ernst Mayr’s Theory.” On the specifically



an unopened wooden door. A belief that physical pleasure is the *summum bonum* of a human life translates into specific actions which serve as means to that end. In each case the belief, as a habit of action, is a general and teleological governance of behavior that works itself out in through specific series of efficient causation.

If working beliefs are to be thought of as general ends, then the growth of belief will be the growth of teleological generality. Growth will consist in the development of possible beliefs into actual beliefs throughout the process of inquiry. This creation and development of possible habits of belief through inquiry occurs in habit-taking. Habit-taking usually begins when some working habit is frustrated, when some working habit fails, producing an “irritation.” At the level of human thought, this failure of habit is experienced as the irritation of doubt: “The irritation of doubt causes a struggle to attain a state of belief. I shall term this struggle *Inquiry*, though it must be admitted that this is sometimes not a very apt designation” (5.373). Peirce goes on to show how even the slightest and most trivial examples of doubt prompt very succinct and simple acts of habit-taking. Our purpose is to pay for coach fare (5.394); we have certain habits of action which are typically appropriate for this activity. But when it comes time to pay the cashier, we do not know what bills or coins to use. Our habit of action is too vague. It fails. We experience the irritation of doubt that accompanies habit failure and we attempt to meet the end at hand with a new habit. We might note that the irritation of doubt signifies the failure of some established habit to accommodate a more

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developmental nature of Peircean teleology see Carl Hausman's *Charles S. Peirce's Evolutionary Philosophy*. See also 7.471

general purpose/habit. Habits, though they are themselves each final causes, are also means to more general final causes. As we will see below in our discussion of induction, it is when habits fail to satisfy some more general end that habit growth typically begins. The result of this process of habit-taking is that the original habit of paying the fare is diversified and developed:

A belief-habit in its development begins by being vague, special and meagre; it becomes more precise, general and full, without limit. The process of this development, so far as it takes place in the imagination, is called thought. (3.160)

As the irritation of doubt prompts some inquiry, we begin the process of habit-taking; we attempt to create a new habit for such situations and, in turn, diversify our old vaguer habits.

Notice that in the brief passage above, Peirce provides what would seem to be conflicting descriptions of the process of habit-taking. On the one hand, the growth of habit seems to imply a movement from the “special” to the “general.” Peirce specifically refers to habit-taking as a generalizing tendency (6.204); it seems that habit-taking would have a unifying effect. On the other hand, growth is described as a movement from the vague to the precise. Habit-taking is referred to as the movement from homogeneity to heterogeneity. Peirce writes, "All the evolution we know of proceeds from the vague to the definite" (6.191). In other words, growth would seem to involve specialization. In order to understand this difficulty and a number of other intricacies of Peircean growth, we must come to a more detailed understanding of habit-

taking. We will clarify the growth of mind in inquiry by examining each of the three logical inferences of abduction, deduction, and induction.<sup>5</sup>

### *Abduction in inquiry*

Depending on how established an idea may be, it will function more or less like a deductive principle for action. This is only to rephrase the well-known point that the meaning of a belief can be expressed as a conditional proposition. A working habit tends to bring about a certain type of consequent given a certain type or set of antecedents. As conditional statements, they can be thought of as abbreviations of deductive syllogisms. But as habits rather than necessities, however, these inferences must be considered probable inferences rather than necessary inferences. What distinguishes the Peircean inference of habit from traditional deduction is that this is not a perfectly necessary inference, and this is precisely why the inference is a habit of action and not a law of action. Were our beliefs laws of action rather than tendencies, the growth of belief would not be possible. Were we determined to respond to the same conditions with the same type of actions, our beliefs could not grow. But beliefs do grow, and so even established beliefs that have the all the functional appearance of a deductive syllogism must in fact be only probable rather than absolutely necessary

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<sup>5</sup> Since our concerns are more general than pure scientific inquiry, I will continue to refer to the growth of ideas as the growth of beliefs, despite Peirce's resistance to the mingling of lived belief and science. Without addressing the issue of the relation of scientific belief to lived belief, I would like to warn that

inferences. Mind is capable of growth because mind functions habitually rather than necessarily.

Otherwise put, mind functions not merely deductively, but also abductively. I am driving, pulling up behind a car that is stopped at a red light. The light turns green. My working beliefs suggest to me that the car will begin to move. This habit of thought is so entrenched that it follows without inquiry from my experience. It operates as habit of thought that approaches the necessity of deduction. But the car doesn't move. I am now at a state that requires a new habit of action if I am to satisfy my more general ends. Could the driver be distracted? Could the driver be asleep? Could the car be abandoned? Could I have made a mistake in my perceptual judgment that the light was in fact green? These inferences, Peirce claims, are a logical inferences even though they are not deductive inferences. This is the logical inference of abduction, and it begins the of the process of habit-taking that follows the failure of established habit.

As established beliefs fail, new beliefs must be abduced. Abduction produces a belief that is general enough to explain the surprising new belief (often the product of perception):

The surprising fact, C, is observed;  
 But if A were true, C would be a matter of course.  
 Hence there is reason to suspect that A is true. (5.189)

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belief will be used below in a sense wider than mere scientific (provisional) belief. On this matter see Hookway, "Belief, Confidence and the Method of Science," and Anderson, *Strands of System*, pp. 82ff.

This inference Peirce came to call "retroduction" because the inference is a movement "backwards" from consequent to antecedent, from some new, irritating belief to its explanation. A new habit "stands behind" another habit or group of habits, providing a principle that can unify preexistent belief/s with particular consequences. Notice that our inference, were it meant to be a necessary deduction, would be fallacious. The premises do not necessitate the conclusion. Despite the fact that abduction is not a necessary inference, however, it is still a logical inference (5.188). Peirce made a significant contribution to the theory of inquiry by arguing for the logicity of abduction, which meant in part arguing for the logicity of a form of inference that is not deductive or necessary. Abduction possesses a logicity and can be evaluated as such. As we will see abduction occurs in the context of purpose. The inquirer desires an explanation. Abduction is a skilled inference that requires a self-control. The abduction that the driver is distracted is a good abduction, better than the abduction that the car is abandoned. And this is the case even though it is not deductively necessary. Peirce was unwilling to ignore the logicity of this inference simply because its reasoning was not necessary. This we might note, is the logical analogue of Peirce's critique of Hegel's metaphysics.

This brings us to the first of two paradoxical elements about abduction and about Peircean growth by habit-taking in general. Firstly, abduction seems to involve both constraint by prior habits and a freedom from prior habits. If Peirce is correct, the growth of mind could not, in fact, occur if our beliefs were perfectly necessary. Were habits of belief truly deductions, absolutely necessary, growth would not be possible.

Abduction occurs when beliefs allow for the beginnings of new beliefs. These abductive beginnings are genuinely new in the sense that they cannot be reduced to prior beliefs; they cannot be reduced to necessary consequences of premises. An element of newness--what Peirce referred to more commonly in his metaphysics as "spontaneity"--is required. Speaking in the of logical growth in a way that will surely remind us of Peirce's cosmological arguments against materialism and necessitarianism, Peirce writes:

Observe that neither Deduction nor Induction contribute the smallest possible item to the final conclusion of inquiry . . . every plank of its advance is first laid by retroduction alone, that is to say, by the spontaneous conjectures of instinctive reason." (6. 475)

Or, elsewhere:

Abduction is the process of forming an explanatory hypothesis. It is the only logical operation which introduces any new idea; for induction does nothing but determine a value, and deduction merely evolves the necessary consequences of a pure hypothesis.

This "spontaneous conjecture" of abduction is the first stage in the creation of a belief. As Carl Hausman has noted, speaking of creativity in general, there is an "unpredictable" element to creation that suggest that the newness is spontaneous and cannot be reduced to antecedent conditions.<sup>6</sup> Likewise, abduction cannot be produced mechanically. Abduction is creative in the strong sense of bringing about a new idea

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<sup>6</sup> Carl Hausman, *A Discourse on Novelty and Creation*, p. 19.

not reducible to existing ideas. We should note, incidentally, that the novelty of the abduction need not be the creation of a new concept. It is the creation of a new possible connection between ideas. In intellectual abduction we often apply established beliefs to new situations. While Darwin did not create the statistical method, for example, his abduction that the statistical method could be applied to organic evolution was relatively novel.

But while the abductive inference must be spontaneous—irreducible to the consequences of its premises—it is also constrained, affected by the general purpose of the inquirer. Abduction is spontaneous in the sense that it is new; it could not have been deduced from any prior beliefs. But the abduction is not random; it is a controlled inference. While there is a chance element to abduction, it is not the product of pure chance; it is somehow continuous with its context. This is obvious because abduction does not possess the randomness we would expect of an idea that appeared purely by chance. Abduction tends to be too often correct, and it therefore lacks the element of mathematical independence—complete discontinuity with previous abductions—that is the hallmark of absolute chance. Otherwise put, the spontaneous element of abduction seems to be in sympathy with the belief-system of the inquirer. It was of course this feature of abduction in the history of science that led Peirce to suspect that there was indeed some natural affinity between human and cosmic logic:

But how is it that all this truth has ever been lit up by a process in which there is no compulsiveness nor tendency towards compulsiveness. Is it by chance? Consider the multitudes of theories that might have been suggested. A physicist comes across some new phenomenon in his

laboratory. How does he know but the conjunctions of the planets have something to do with it or that it is not perhaps because the dowager empress of China has at that same time a year ago chanced to pronounce some word of mystical power or some invisible jinnee may be present. Think of what trillions of trillions of hypotheses might be made of which only one is true; and yet after two or three or at the very most a dozen guesses, the physicist hits pretty nearly on the correct hypothesis. By chance he would not have been likely to do so in the whole time that has elapsed since the earth was solidified. (5.172)

Abduction seems to be affected by the more general habit-system in which it occurs.

This abduction, like all abductions beyond the perceptual level, is subject to some element of control.<sup>7</sup> As Anderson notes, following Nicholas Rescher, it is this feature of scientific method which distinguishes Peircean inquiry from the conjecture/refutation model of Karl Popper. To claim abduction is beyond some self-control, a matter of sheer chance, would be to claim that the scientist lacked control over inquiry as a whole. While, as both Anderson and Esposito note, we must resist the temptation to see this instinct as evidence of a power of intuition in which the hypothesis carries infallible evidence of its confirmation, we must still acknowledge that there is a continuity at work in abduction formation. It seems that the inquirer's purpose in finding an explanation in some context affects the nature of the spontaneous abduction.

In what, then, does this constraint on abduction consist? Though abductions are not necessitated, they do seem to be affected by purpose, by a species of the teleological. If the purpose of the inquirer was not an explanation of the surprising

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<sup>7</sup> See Anderson, *Creativity in the Philosophy of Charles S. Peirce*, p. 38, on abduction and the uncontrollable element of perceptual judgement/abduction. This lack of control in perceptual judgment is



phenomenon, the spontaneous abductive offering would most likely be irrelevant. The “habit-system” or belief system of the inquirer is thoroughly teleological, and the teloi of the inquirer influence the spontaneous conjectures of abduction.

The paradox then is that the spontaneous abduction which produces a possible belief seems to be both free from contextualizing habits and in sympathy with contextualizing habits. Or, to put the same point in these terms of continuity and discontinuity, abduction seems to be both continuous and discontinuous with the previous habits of the inquirer. The abduction is not reducible to prior habits of belief and yet the abduction, as non-random, is not unrelated to prior habits of belief. Within the context of continuity there seems to be an element of discontinuity. As Hausman notes, speaking of creativity in general, the novelty of the abduction . . .

. . .does imply . . . that at some point in the continuous development of a special kind of progress—namely, creative process—there is a break in continuity, a break in the structure of the process.<sup>8</sup>

The mere unpredictability of abduction is enough to convince us of its novelty, but it is too much in sympathy with its context to be considered entirely discontinuous from its context.

To understand how this continuity is experienced, it is important to take Peirce’s claim that ideas are “concreted feelings” seriously (6.152). There is a sensual aspect to

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different in kind from the “uncontrollable inclination to believe” in the “Neglected Argument,” having more to do with the limit of self-control in perception than the content of belief.

<sup>8</sup> Carl Hausman, *A Discourse on Novelty and Creation*, p. 36. This is one element of Hausman’s “paradox of radical creativity.”

abduction, Peirce once noted (2.643), and the searching for the proper abduction depends to some extent on a felt sense of appropriateness. We see this at work in the guidance of *il lume natural* in science or, as we will see, in sentiment in practical matters (see, e.g. 1.672). Ideas, for Peirce, were habitualized or regularized feelings. They are therefore to some extent recognizable by their felt quality. For understanding both the experience of abduction and, indeed, the Peircean cosmology as a whole this point is essential:

[G]eneral ideas are not mere words, nor do they consist in this, that certain concrete facts will every time happen under certain descriptions of conditions; but they are just as much, or rather far more, living realities than the feelings themselves out of which they are concreated. And to say that mental phenomena are governed by law does not mean merely that they are describable by a general formula; but that there is a living idea, a conscious continuum of feeling, which pervades them and to which they are docile. (6.152)

Ideas are regularizations of felt consciousness, both in our “internal” experience and, as we shall see, in the cosmos. To the extent that certain feelings become habitual rather than mere free, spontaneous and random consciousness, they approach the regularity and functionality of general ideas. When feelings become “welded together in association, the result is a general idea” (6.137). As we might have expected, Peirce resisted the separation of our psychological experience into distinct, discontinuous elements. The significance of this point for our present purposes is that the felt aspect of general ideas is experienced in abduction. It is this felt aspect which guides the inquirer towards likely abductions. A pre-articulate—but not pre-logical—instinct

seems to be at work in abduction. It relies in part on a felt sense of appropriateness. Although we will leave a more thorough discussion of feeling and the constraint on newness for our consideration of agape in cosmic evolution, we should take note of an experiential source of Peirce's agapasm in felt continuity of intellectual abduction. The growth of belief relies in part on the pre-articulate, though not pre-logical, felt guidance of prior habits.

To summarize this first paradoxical element of abduction and Peircean growth by habit-taking in general: Upon the failure of established habits and the irritation that results, new abductive offerings of possible habits appear. These abductions are not necessary consequences of prior beliefs, but they are not unaffected by prior beliefs. In the teleological context of inquiry the inquirer can sense which abductions are more likely than others, and this felt element of abduction lends a continuity to growth.

The second paradoxical element of Peircean habit-taking has been alluded to above. Peirce seems to provide conflicting descriptions of habit-taking. We have seen that habit-taking is referred to as generalizing tendency (6.204), that the "the one primary and fundamental law of mental action consist in a tendency to generalization" (6.21). Habit-taking on the level of belief is the process by which ever more general habits arise in explanation of old habits. It is the process through which ever more general *teloi* reconfigure and redirect habits. This "backwards" retroductive movement of habit consistently makes our belief system more general and more reasonable. In so far as it is an explanation that is needed, some principle more general than the surprising phenomenon will be needed as an abduction. On the other hand, however, habit-taking

is referred to as a movement from the homogeneous to heterogeneous, a movement from the vague to the definite. This movement is one of diversification:

Evolution means nothing but *growth* in the widest sense of that word . . . .  
And what is growth? Not mere increase. Spencer says it is the passage from the homogeneous to the heterogeneous --, or if we prefer English to Spencerese - - diversification. That is certainly an important factor of it.  
(1.174)

The key to this paradoxical element of habit-taking is the following: the spontaneity of abduction is simultaneously a generalization of less general habits and a diversification of more general habits. Abduction is a generalization relative to the more specific belief/s it unifies, but it is simultaneously a diversification relative to a more general belief. An example will help make this clear.

I am reading a newspaper editorial by an author with whom I am only summarily familiar. I begin with a certain vague knowledge of her opinions, knowing, for example, that she has taken a public stand in support of abortion. She falls into the notoriously vague category of “pro-choice.” I come across a passage, however, in which she makes a criticism of *Roe v. Wade*. I am surprised. My vague belief regarding her opinions suggested she would be a supporter of the Supreme Court case that made abortion a federal right. My vague habit has failed. It is at this point that an abduction may arise. It occurs to me that the author may take issue not with the consequences of *Roe*--significant federal protection of the abortion right--but with its legal rationale. Perhaps she thinks *Roe* to be too *weak* a legal argument for abortion rights. Perhaps she fears that the logic employed in *Roe*--securing the right to an

abortion through the “right to privacy” (never mentioned in the Constitution)--is too tenuous a justification for such an important freedom. If this were the case her surprising disagreement with *Roe v Wade* would be explained. I begin reading on with my new hypothesis which may or may not be verified by the later stages of inquiry.

Notice how this abduction is at once a generalization and a diversification of my beliefs. My (very new) belief that the author is critical of *Roe v. Wade* stands in need of explanation, and it is given an explanation by the introduction of a more general belief, the belief that she is critical of the general legal strategy that was employed in *Roe*. My abduction functions as a generalization relative to this more specific belief. My more general belief that she is a supporter of abortion rights, however, is now diversified, made less vague. This more general belief has become more nuanced, more specialized, through the introduction of the abduction. I am entertaining a possible belief, a possible habit of action, that offers to generalize more specific habits and diversify more general habits. The movement from vagueness to definiteness occurs simultaneously with the unifying movement of generalization.

We might also note that the first paradoxical element of abduction--its freedom from/continuity with its context--is also instanced in the above. Nothing in the premise that the author disagreed with *Roe* deductively implied that she mistrusted its legal rationale. She may have supported legal abortion, but thought that it was best left a state issue rather than a federal issue. She may have simply been misinformed about *Roe*. Other explanations might have been more or less probable, but they too would not have been deducible. The abduction cannot be drawn as a necessary consequence of the

premises. Abduction requires an element of spontaneity. This said, however, it is also the case that the abduction offered was not random. The belief that appeared, irreducible to prior beliefs, was affected my intent to find an explanation and my felt sense of the appropriateness of the abduction.

We will return to both of these distinctions on the cosmic scale in what follows. For the moment, we will note that while the mechanism of the growth of mind begins with the inference of abduction, the abduction is not itself a belief, not a habit of action, but a possible belief, a possible habit of action. Through abduction the growth of habit has only begun. Abduction produces spontaneous, non-random, possible beliefs which offer to both unify and diversify knowledge. We must now attend to the two other inferences which are necessary for the full growth of mind.

### *Deduction in inquiry*

A belief is a habit of action, and an abduction is a possible belief. For a possible belief to develop into a working belief, its consequences for action must be clarified. It must be developed beyond its original vagueness. While it is possible that a hypothesis may initially be perfectly adapted to its environment, the far greater likelihood is that the abduction will need to be both clarified and tested. Further, even if the original hypothesis were perfectly functional in its status as a possible belief, this could not be known without the later stages of inquiry. The “critical” element of Peirce’s doctrine of critical-commonsensism points to the fact that despite the assistance

of instinct in inquiry, abductions are rarely satisfactory without being developed through the other forms of inference. A belief can only become established through clarification and testing. Deduction provides clarification. And so "the first thing that will be done, as soon as a hypothesis has been adopted will be to trace out its necessary and probable experiential consequences. This step is deduction" (7.203).

Deduction attempts to make plain what would necessarily or likely be the case if the abduction were true. Deduction is not the testing of the possible belief, *per se*, but the work of determining the belief in ways such that it can be tested. It is thus through deduction that possible beliefs are given the precision necessary for testing. Depending on the vagueness of the abduction, the deduction may be more or less intensive a process. In the cases where abductions begin as only the vaguest of ideas, the work of deduction will be considerable. Peirce admits this is the case even with his own hypothesis of the reality of God (6.489). Regardless, it is deduction that clarifies the vagaries of the abduction. This of course means for Peirce that it is in deduction that the pragmatic method of clarification is employed, ideally giving a robust account of the sensible effects that would be expected if the idea were true. Since, as we know, the meaning of the idea will be both general and teleological, what this stage of inquiry accomplishes is a clarification of the general expectations for action that are implicit in the belief.

As Anderson points out deduction traces not only the logical consequences of the abduction itself, but the logical consequences of the abduction in conjunction with

one's entire set of beliefs.<sup>9</sup> The result is that a simple abduction can lead to a multitude of consequences which follow necessarily from the addition of this one new belief. In our example of the newspaper editorial, deduction might lead us to expect that the author would be skeptical of other Supreme Court cases that invoked the “right to privacy.” It might lead us to suppose that the author would be somewhat critical of later cases which reaffirmed the logic of *Roe*. If we came across a passage which disappointed these deduced habits of expectation, this would suspend the growth of our abduction. The deduction in combination with the whole of one's beliefs produces a diverse set of habits of action which follow from the abduction.

An important point of interest about deduction is that for Peirce deduction can be either probable or necessary. The necessary deductions of logic or mathematics are on a continuum, as we will see, with the probable deductions of the growing cosmos. Our beliefs, likewise, can be considered probable deductions (in the form of conditional propositions) rather than perfectly necessary deductions. It is because of the probable nature of deduction in belief and in the cosmos that growth is possible. Even the deductive clarifications of abductions in inquiry fall on a spectrum of probability with perfectly necessary deductions being a limit point.

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<sup>9</sup> Anderson, *Creativity and the Philosophy of Charles Peirce*, p. 51.



### *Induction in Inquiry*

The final stage of inquiry is induction:

We now institute a course of quasi-experimentation in order to bring these predictions to the test, and thus to form our final estimate of the value of the hypothesis, and this whole proceeding I term Induction. (7.115, n.27)<sup>10</sup>

Through induction the necessary or probable consequences of the abduction are tested, resulting in the confirmation, abandonment or adjustment of the abduction. Abduction offers a possible belief. Deduction clarifies what would follow if that belief were actually the case. Induction tentatively determines if the abduction is a success or failure. To understand induction, then, we must understand the what it means to speak of the failure of abduction.

It is commonly noted that induction tests induction against the constraints of reality. This is obviously true of induction in inquiry. If a hypothesis necessitates deductive consequences which are incompatible with either beliefs of perception or more general beliefs, then either the new hypothesis or one of these constraining beliefs must be false. Without induction, abductions would never confront the reality they propose to explain. If, to return to our example, the consequences of our abduction are in conflict with some of the authors' other statements, this would suggest that our abduction is a failure. To the extent that deductive consequences of abductions are

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<sup>10</sup> As quoted by Anderson, *Creativity and the Philosophy of Charles Peirce*, p. 52. I will be simplifying somewhat, dealing above with qualitative, rather than quantitative induction.

disappointed in practice, the abduction is weakened, possibly refuted, perhaps leading to a new abduction.

I would like to suggest, however, that this confrontation with reality is not the essence of Peircean induction. This meaning of induction will fail us at all levels beyond inquiry. We must look beyond Peirce's explicit remarks about induction, then, to find the essential element that will be generalized into the physiological and the cosmic realms. Induction, I would suggest, is essentially the testing of an abduction against the end it was created to serve. Induction tests the consequences of abduction to determine if this new habit serves a more general telos. In inquiry, then, the abduction is tested to determine if it provides an explanation of reality. And so induction will of course involve a testing of the abduction against reality. But this testing occurs within the context of purpose. The inquirer is, as Kant suggested, asking questions of nature. The abduction is success or failure essentially if it serves the specific purpose of the inquirer. As we extend induction into other realms, however, the success of abduction will be more obviously a question of whether the abducted habit serves as a means to a more general habit. Although habits are each final causes or ends, they are also each means to more general ends. The growth of habit includes the creation of more diverse habits that serve more general and vague ends. Notice, incidentally, that the testing of the abduction could not be a testing of the consequences of the abduction against the telos of the abduction itself. This would make no sense in inquiry where the consequences of the abduction are often logically necessary. The consequences of the

abduction are tested against the context of purpose which gave rise to the abduction.

This is point we will revisit at the other levels of the growth of mind.

### *Summary*

If Peirce is correct, the growth of mind in inquiry requires three distinguishable inferences. Since this examination of growth through inquiry will be a reference point for our examination of growth in general it is worth pointing out what sort of “skills” seem to be involved in each inference of growth. First, growth requires a complex combination of freedom and felt constraint. This openness to the guidance of feeling, this “freedom for constraint,” is the essence of abduction and likely the skill that distinguishes the artist from her peers. At the level of human inquiry this is a complex talent, one in which an appropriate amount of openness, perceptiveness and freedom must be sustained in a context of purpose and focus. Abduction is not, as we have seen, a matter of pure chance, and it is therefore the sort of activity that one might be more or less inclined to do well. Secondly, growth requires the effort and skill of deduction. Abductions announce themselves and they are perfectly self-satisfied in their potentiality, unifying diverse phenomena, for the moment, and satisfying the immediate need for an explanation. But if logical growth is to continue beyond any given abduction, it cannot end with possibilities. It requires the mechanical effort of deduction, the painstaking work of developing a possible belief for testing. Without this work, the true value of the abduction cannot be measured. This, Peirce hints, is the

easiest of the three skills to master. For it requires neither the artful employment of feeling necessary for abduction nor the collection of experience necessary for induction:

The medieval schoolmen, following the Romans, made logic the earliest of a boy's studies after grammar, as being very easy. So it was as they understood it. Its fundamental principle, according to them, was, that all knowledge rests either on authority or reason; but that whatever is deduced by reason depends ultimately on a premises derived from authority. Accordingly, as soon as a boy was perfect in the syllogistic procedure, his intellectual kit of tools was held to be complete. (5.359)

While deduction requires a patience and a practice and a dedication, it is buffered from both the anxious uncertainty of abduction and the continual disappointments of experience. Finally, growth requires a dedication to the ends which contextualize the abduction. In inquiry, growth requires a dedication to reality, a continual and sustained attention to the details of experience. This too is more or less of a talent even outside the scientific laboratory. As I will suggest in the final chapter, a dedication to experience and perception requires a courage and endurance that is uncommon.

If one of these skills is absent or deficient, the growth of mind will be thwarted. If the inquirer does not allow himself the freedom for abduction, does not cultivate an arena in which spontaneity is possible but not random, the appearance of relevant novel ideas will not occur. If the abduction is not clarified through deduction, it may remain so vague that it will be immune to falsification. If a confrontation with reality or other beliefs is avoided, the abduction may become a working belief, but no growth beyond

that point will be possible. Without testing, there can be no failure, and without the risk of failure there can be no further growth.

The tentatively final product of the growth of mind in inquiry is a working habit, the actualization of a possible belief, and we are back full circle. The longer abductions remain functional and operative, the more habitual they become, and the more they approach the status of premises, as working habits of action or probable deductions in our lived experience.

## **II. The Growth of Mind II: Habit-Taking in Physiology**

Peirce's remarks about physiological habit-taking are amongst the most bizarre in his corpus. Yet a brief review of how these inferences work at the physiological level will prepare us for our discussions of cosmic growth and biological growth. Since the physiological is still within the realm of the animate, this application of the logic of growth beyond the realm of what we would typically consider to be the mental will serve as somewhat of an intermediary between our study of intellectual and cosmic growth.

The physiological, like the intellectual, owes whatever stability it possesses to ideas. Peirce's insight was again to see the essential attributes of the idea--teleology and generality--at work in realms other than the intellectual. By virtue of the claim that

ideas are habits of action, Peirce was able to make sense of his claim that all reality can be understood as growing mind. Whereas working habits of action at the intellectual level are beliefs, however, working habits of action at the physiological level are reflexes. Like beliefs, our habitual movements are typically sufficient for guiding action as stimuli occur. Reactions to stimuli become so habitual that the relation between antecedent and consequent approaches the certainty of a deductive inference. This becomes a reflex, the physiological analogue of belief (cf. 1.390).

In both cases, the habit of action is general and teleological. At the physiological level, reflexes function as general ends which find some series of efficient causation to work themselves out. Reflexes function like beliefs, as general and teleological habits of action. Like beliefs, reflexes are general. When one hears a bumble bee crawl into one's ear, the response will be a certain type of action. To the extent that habit "hardens" to the point that it certain, it approaches the limit of a deductive inference. Peirce writes, in "The Law of Mind":

In deduction the mind is under the dominion of a habit or association by virtue of which a general idea suggests in each case a corresponding reaction. . . . That is the way the hind legs of a frog, separated from the rest of the body, reason, when you pinch them. It is the lowest form of psychical manifestation. (6.144)

Notice that there is no perfectly necessary logical connection between the antecedent of the pinch and the consequent. As mentioned before necessary deduction, when it occurs in Peircean inquiry, is something of a limit case of deduction. A habit may

become so hardened, however, that it is practically necessary, that it functions as a physiological analogue of deduction.

### *Physiological Abduction*

Habit-taking is essentially a response to irritation. When our established habits of action fail, we must either suffer the irritation indefinitely or grow. Intellectual growth is occasioned by the intellectual irritation or doubt. Physiological growth is occasioned by some physiological irritations. Because habits are not absolute deductive inferences, new possible habits may arise. There is consequently a potential for growth: “After repeatedly rubbing the [acid] with the other foot,” Peirce notes, the frog “may at length be observed to give several hops” (1.390). A new candidate for a habit of action arises. This is physiological abduction. This of course means that we have a spontaneous event that occurs in a teleological context. There is no necessity that the irritation causes the frog to jump. But this abduction is not random. Just as intellectual abduction arises in the context of purpose so too abduction arises in the context of purpose at the physiological level, the purpose here being the removal of some sensed irritation. It is this purposeful element at the physiological level that makes this action continuous with the growth of mind in inquiry. Both are teleological and insofar mental. As in inquiry, we might note, the newness here need not be an entirely novel action. The newness occurs in the novel connection between a habitual movement and the purpose at hand.

A further example of physiological abduction is useful for understanding the generalizing effect of an abduction:

If a person who has never tried such a thing before undertakes to stand on one foot and to move the other around a horizontal circle . . . and at the same time to move the fist of the same side as the moving foot round a horizontal circle in the opposite direction . . . he will, at first, find that he cannot do it. The difficulty is that he lacks a unitary concept of the series of efforts that success requires. By practicing the different parts of the movement, while attentively observing the kind of effort requisite in each part, he will, in a few minutes, catch the idea, and will then be able to perform the movements with perfect facility. (5.479)

Elsewhere Peirce gives a similar example and notes that: "a general conception of the action springs up and it becomes perfectly easy" (6.146). The general idea "unites" the action. As Peirce notes, "The same mental process is many times employed whenever we are learning to speak a language or are acquiring any sort of skill" (6.146). This generalizing movement is a movement towards lawfulness and uniformity.

### ***Physiological Deduction***

Just as deduction in inquiry draws out the consequences of an intellectual abduction, so too deduction in physiology draws out the consequences of a physiological abduction. At the level of inquiry, deduction shows what would theoretically be the case if the abduction were to become a habit of action. At the physiological level, deduction shows what would be the case physiologically if the abduction were adopted as a habit of action. At the physiological level, however, the



consequences drawn will be physiological rather than theoretical. This we saw in Peirce's example of the frog acting deductively.

### *Physiological Induction*

Induction is of course a testing of the new habit. The abduction, though itself an end, is also a means to an end. Induction tests to see if in fact the consequences of the abduction serve this more general end. In our frog example the abduction in response to the acid is a hop. The deduction from this habit is a series of specific acts of efficient causation which draw out the consequences of the abduction. Induction compares the consequences of the abduction to the final cause which contextualized the abduction. If the consequences of the abduction "jumping" serve a more general purpose, the abduction is on its way to becoming an established habit of action. If the abduction fails to satisfy its purpose (as we suspect here it will) a new abduction will become a candidate for a habitual response to this irritant. In inquiry, an abduction satisfies a more general purpose by providing an explanation, removing the stimulus of doubt. At the physiological level, the abduction satisfies its purpose through removal of the stimulus of sensation. As we have seen, this is a fairly subtle point because the induction is testing the consequences of the abduction not against the abduction itself, but against the end which contextualized the abduction. The abduction itself, as a general, has a final cause. But it offers itself spontaneously in the context of a more general final cause. The abduction is both an end and a means to this end. Thus failure

of the abduction will be a failure of the executed abduction to accommodate the more general end which contextualized its appearance. Induction is something of a dialogue between the consequences of an abduction and the telos which contextualized the abduction.

### **The Growth of Mind III: Habit-Taking in the Cosmos<sup>11</sup>**

Whereas the growth of mind in inquiry entails the growth of possible beliefs into actual beliefs and the growth of mind in physiology entails the growth possible reflexes into actual reflexes, the growth of mind in the cosmos will entail the growth of possibility into actuality. The growth of the cosmos is the growth of possibilities into actualities through the process of habit-taking. Whereas habit-taking meant the growth of belief in inquiry or the growth of reflexes in physiology, now habit-taking will mean the growth of law. Ideas will function as habits of action for the cosmos entire, as physical laws and as the material regularities that are subject to those laws. The

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<sup>11</sup> A difficulty with this strategy of explaining the cosmology is that the cosmology predates Peirce's most mature account of inquiry. The specific difficulty is that as of 1892 Peirce had still not clarified the difference between abduction and induction to his own ultimate satisfaction. Thus at 6.145, Peirce offers an explanation of "cosmic induction" that retains traces of abduction. As Anderson notes, it is not until 1902 that Peirce came to an explicit awareness of his earlier confusion of abduction and induction (Anderson, *Creativity and the Philosophy of C. S. Peirce*, p. 23). For this reason I will show how Peirce's mature understanding of abduction and induction can clarify the cosmic habit-taking process, even though this may occasionally be in tension with some of Peirce's less mature remarks about logic in the cosmology papers.

Peircean cosmos is an analogue of the growing human mind in which regularities spontaneously arise and gradually develop into habits of action. This is Peirce's "objective idealism."

Ideas that provide regularity to thought and physiology will now provide regularity for brute matter. Indeed, brute matter itself will become the extreme limit of habit, matter as "effete mind," mind all but perfectly regularized by habit. Peirce saw that because habits could be law-like, they could explain cosmic regularity, the appearance of perfect lawfulness. At its most severe habit will resemble the unswerving regularity that appears to determine material behavior. But, because habit is not absolute, is not truly law, it is compatible with growth. Indeed, there is, properly speaking, no law in Peirce's cosmos. Law, as it has been traditionally understood in classical mechanics is the limit of habit, the absolute instantiation of habit. But law as it in fact operates in the Peircean cosmos always remains tendency even when this tendency is all but a perfect necessity.<sup>12</sup> Thus habit will allow for the spontaneous appearance of new possibilities that are the condition of growth. By understanding law as habit rather than necessity, Peirce is able to extend the logic of mental growth far beyond the realm of the human inquirer. Since Peirce's cosmos was modeled on the evolution of ideas, the very habits action of the cosmos itself will evolve.<sup>13</sup>

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<sup>12</sup> When Peirce refers to law as a second, he is referring to law at its theoretical, non-actualizable, limit. When Peirce refers to law as a third, he is referring to law as he believes it does in fact operate in the evolving universe--not as law traditionally understood, but as habit.

<sup>13</sup> This is a major theme of Hausman's *Charles S. Peirce's Evolutionary Philosophy*. An important difference between Hausman's reading and my own is that Hausman considers Peirce's objective idealism to be somewhat of a misnomer since secondness or brute actuality can never be reduced to mind

This ascent to the cosmic level brings with it the primary features of mentality, generality and teleology. The generality of habit is the basis of Peirce's epistemological realism. Habits of action will explain the generalities that make experience intelligible, and it is ultimately these generalities which make scientific inquiry possible. The generality of cosmic ideas is the condition of scientific knowledge. As Hausman has stressed, however, because these reals are in continual development scientific inquiry will always be asking questions with evolving answers.<sup>14</sup>

Peirce did not flinch at drawing out the full consequences of his cosmic idealism. For Peirce cosmic habits were not only general but also teleological. This is not to say that cosmic ideas each have purposes. Purpose, as noted above, is only one familiar species of final causality (1.211). But all cosmic habits exert their power through final causation. They are generalities which employ some specific series of efficient causation to bring about a type of result. Because habits are general they need not be worked out in the same way in each instance. These generals bring about some end irrespective of what specific means of efficient causation is employed. If one means is not available or successful, another will be adopted. Although the execution

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(p. 4). This may signify a fundamental difference in interpretation between Hausman and myself. I consider secondness to be an absolute limit, never truly reached by the developing cosmos. Since the cosmos begins as pure feeling and develops existence only through the habituation of feeling, I think we must take feeling and ideas as basic realities in Peirce and consider brute matter to be a limit that is never reached. This, of course, is not to say that we do not *experience* matter as brute or that there is not a brute resistance to interpretation—the “Outward Clash” that Peirce claims Hegel overlooked—but only that metaphysically speaking, even brute matter remains, for Peirce, “effete mind.”

<sup>14</sup> This is a major theme in Hausman, *Ibid.* See especially pp. 140-226. For reasons alluded to above Hausman claims that full intelligibility in science is frustrated not only by the evolutionary character of reality but also by the irreducibly extra-mental within reality.

of habit is a specific sequence of efficient causation, the habit itself, as a general, functions as a final cause.

The result of such an extension of ideas/habits to the cosmic scale is a grand “habit-system” in which generalities nested upon generalities provide successive layers of teleological guidance to action. Each habit can be thought of as a final cause with a teleological sway over some set of less general habits. Each habit, so long as it governs other less general habits, forms its own habit-system in which more specific habits serve to some degree as means to its end. Likewise, each habit, so long as it is governed by a more general habit, is an imperfect means to some more general end. While this means/end relationship helps to clarify the interrelation of habit, it should not be taken to imply that more specific habits are forced to serve the more general end. As we shall see, fundamental to Peirce’s agapasm is the claim that habit never makes anything it governs perfectly conform to its end. There is a freedom in the Peircean cosmos which persists even as habits gain force and become more matter-like. For the moment, however, our point is that the Peircean cosmos is itself one most general idea, in development, composed of less general ideas. Our universe is itself a general idea with its own particular quality and wholeness (6.228). It is a most vague and least coercive habit with its own vague and developing telos, a developing telos it exercises with varying degrees of influence over all other all ideas. It both is *an* idea --a most general idea/habit--and it is *comprised* of ideas, less general ideas/habits. It is “a living inferential metaboly” of ideas (5.402).

If we take this model of developing habits and extend it to its extreme limits we come to the theoretical end points, infinitely distant, of pure potentiality and pure actuality. Such an extension of logical growth

. . . would suppose that in the beginning—infininitely remote—there was a chaos of unpersonalized feeling, which being without connection or regularity would properly be without existence. This feeling, sporting here and there is pure arbitrariness, would have started the germ of a generalizing tendency. Its other sportings would be evanescent but this would have a growing virtue. Thus, the tendency to habit would be started; and from this, with the other principles of evolution, all the regularities of the universe would be evolved. At any time, however an element of pure chance survives and will remain until the world becomes an absolutely perfect, rational, and symmetrical system, in which mind is at last crystallized in the infinitely distant future. (6.33)

The logic of inquiry has become a cosmic logic in which possible habits spring from the pure freedom of feeling and eventually grow into perfectly habit-ridden or crystallized mind, brute matter.

In a passage where Peirce makes explicit reference to the analogy from human to cosmic logic, he writes:

Looking upon the course of logic as a whole we see that it proceeds from the question to the answer—from the vague to the definite. And so likewise all the evolution we know of proceeds from the vague to the definite . . . the undifferentiated differentiates itself. The homogenous puts on heterogeneity. However it may be in special cases, then, we must suppose that as a rule the continuum has been derived from a more general continuum, a continuum of higher generality. (6.191)

From our own experience of logic and growth, we must infer that cosmic growth is an analogous process which moves from the vague to the definite. As we look backwards,

we see that the generality that our current state possesses is owed to a yet more general state from which it was derived. Prior to any moment in a process of growth there must be a more continuous and vague antecedent. If we follow this logic backwards to its limit, we come to the state of Absolute Potentiality, that initial state of cosmic growth which is the most general continuum: "the utter vagueness of completely undetermined and dimensionless potentiality" (6.193). All generality and continuity owe their generality and continuity to this most logically prior continuum, that state of Absolute Potentiality which we take to be a theoretical condition of all growth. As we look forward to the infinite future we must suppose a state in which all generality and continuity has been exhausted, a state of perfect diversification that, as we saw, Peirce refers to as a "crystallized" mind. This bizarre feature of the Peircean cosmology is only intelligible when we recall its anthropomorphic origins. The end points of the Peircean cosmos are the theoretical extensions of our human logic writ large.

Between these limit points of pure potentiality and pure actuality, possible habits arise and develop into actual habits in the process of Peircean habit-taking. We will now revisit the inferences of habit-taking for the third time.

### *Cosmic Abduction*

In the abduction of belief, as we have seen, abduction simultaneously generalizes and diversifies other habits of belief. The novelty of abduction will lie in the new generality which establishes a continuity between prior generalities. But this

new generality is also a diversification of a more vague generality, a more vague belief or habit of action. In cosmic abduction an analogous process occurs as abductions spontaneously generalize more specific habits of action and diversify more general habits of action. This paradoxical element of Peircean growth is played out on the cosmic scale through cosmic spontaneity.

First, cosmic abduction diversifies. Abduction occurs within a context and this context will be diversified by the element of spontaneity that is required for abduction. When Peirce speaks of the small aberrations from law which produce diversity over time, he is referring to the effect of cosmic abduction on the general context of the abduction, on the more general habits that contextualize the abduction: “mechanical law can never produce diversification . . . So if observed facts point to real growth, [which includes ‘an increase in variety’] they point to another agency, to spontaneity” (1.174).

But abduction is simultaneously a generalization of more specific habits. Abduction provides new ideas that generalize, reorganize and redirect existing ideas. It is this element of generalization which provides the “bridge” between the limit points of “original chaos” and “crystallized mind” (6.262). The “Law of Mind,” the most basic law of the growing cosmos, states that ideas will spread and generalize, that they will come to affect other ideas with which they are in a certain relation (6.104). This is possible only because of cosmic abduction. Perhaps the clearest example of cosmic abduction comes in the very earliest stages of cosmic growth. In Peirce’s well-known blackboard example, he describes how the habit-taking tendency begins as spontaneous



occurrences (represented at first by stray and random markings on the blackboard)

become generalized:

Once the line will stay a little while after it is marked, another line may soon be drawn beside it. Very soon our eye persuades us that there is a *new* line, the envelope of those others. This rather prettily illustrates the logical process which we may suppose takes place in things, in which the generalizing tendency builds up new habits from chance occurrences.

This is the cosmic version of the spontaneous generalization of hand movement at the physiological level.

Our study of the habit-taking of belief has shown us how this can be a simultaneous movement. In the developing cosmos, every act of generalization will simultaneously be a diversification of more general habits. Every cosmic abduction that occurs is a diversification of the most general and vague habit or idea that is the cosmos.

The second paradoxical element of habit-taking refers to the interplay of freedom and constraint in Peircean growth. Somehow the spontaneous abduction is both free and constrained. How then shall we characterize cosmic spontaneity?<sup>15</sup>

On the one hand, it seems certain that spontaneity, whatever else it may be, is not determined by prior force. It is this feature of spontaneity that Peirce stressed as he became excited about the ideas of chance and spontaneity in the mid-1880s because it is precisely this feature of spontaneity that Peirce considered indispensable for explaining

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<sup>15</sup> For a careful analysis of Peirce on spontaneity, see Andrew Reynolds' "The Incongruity of Peirce's Tychism."

the very possibility of growth. In his "The Doctrine of Necessity Examined" and his "Reply to the Necessitarians," Peirce outlined what he thought were the logical and empirical difficulties involved with denying the role of spontaneity in growth. Where there is "growth and complexity . . . we may fairly infer . . . that there is probably in nature some agency by which the complexity and diversity of things can be increased; and that consequently the rule of mechanical necessity meets in some way with interference" (6.58). Elsewhere he notes that growth is diversification and "wherever diversity is increasing, there chance must be operative" (6.268). This, I suggest, means that Peircean spontaneity is, at the very least, free from the constraint of efficient causation. Growth requires a freedom from efficient causation. Recall that efficient cause for Peirce:

. . . is a compulsion determined by the particular condition of things, and is a compulsion acting to make that situation begin to change in a perfectly determinate way; and what the general character of the result may be in no way concerns efficient causation. (1. 212)

Efficient cause is all or nothing affair: "for force is compulsion; and compulsion is *hic et nunc*. It is either that or it is no compulsion." (1.212) Efficient cause is the action of force which compels perfectly determinate change (1.212). While habit may be spoken of as tendency, efficient cause is either fully present or absent. Thus the only possible relation spontaneity can have to efficient causation is one of complete freedom from efficient causation. Just as a freedom from necessity is required for the growth of

mind at the level of belief, so is a freedom from necessity required for the growth of mind in the Peircean cosmos.

But because spontaneity seems to be in sympathy with the habits that contextualize it--because spontaneity is not pure independent chance-- spontaneity is constrained by final cause. It is after all the teleological nature of Peircean growth that distinguishes it from mere alteration. Spontaneous abductions are not unrelated to their context. They exhibit a fittingness to their context that suggest they are within the sway of final causality. While this is considerably more obvious at the level of belief, it is, I think, a necessary consequence of the habit-taking of ideas on the cosmic level. We might say then that the spontaneity in Peircean habit-taking is free from the force of efficient causation but influenced by the power of final causation.

A consequence of this compromise between final and efficient causation is that that the newness of spontaneity is not perfectly random. Otherwise put, the absolute chance at work in Peircean habit-taking is not, as we might expect of “absolute chance.” independent. Unlike the flip of a coin or the roll of the roulette wheel, the results of prior acts of chance—i.e. the habits that have grown from them—will affect consequent acts of chance. Specifically, the habits, in their capacity as final causes, will affect spontaneity and will therefore compromise its independence. This is an issue we will revisit as we address the relation between tychasm and agapasm in “Evolutionary Love.”

Because the role of feeling will be so important for our experiential retrieval of this model in the final chapter, I would like to give special attention to the role of

feeling in abduction. In the abduction of belief, we have seen, there is a searching process as the human mind essentially feels its way towards an explanation of a problem. The abduction is the product of a process by which the mind follows its intellectual instincts towards a generality that will serve as an explanation. I suggested above that this influence is the felt power of the contextualizing ideas. Now it is clear that the final causes of contextualizing ideas exert an influence on abduction which can be felt as abductions are spontaneously formed.

Cosmic abduction mimics this movement on a larger scale. In cosmic abduction we have the spontaneous creation of possible ideas out of feeling. Feeling in itself is pure spontaneity. It is fleeting and irregular: "Wherever chance-spontaneity is found, there is the same proportion feeling exists. In fact, chance is but the outward aspect of that which within itself is feeling" (6.265). The habituation of feeling is the regularizing or "formulizing" of feeling. Cosmic abduction is a spontaneous concrescence of feeling. It "stabilizes" cosmic feeling into a possible generality. As Corrington phrases it, ideas can be thought of as "concreted moments within the life of feeling,"<sup>16</sup> moments that extend as long as the habits themselves remain functional.

If we extend this function of cosmic abduction back to the theoretical beginnings of the cosmos we would expect to come to a limit point of pure undifferentiated feeling. And this is exactly what we find: "In the beginning—infinately remote—there was a

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<sup>16</sup> Corrington, *An Introduction to C.S. Peirce*, p. 185. Corrington makes the excellent observation that since ideas are habitualized feelings for Peirce feelings cannot be understood as irrational.

chaos of unpersonalized feeling" (6.33).<sup>17</sup> Or, elsewhere: "Feeling [is] assumed as the starting point; but feeling uncoordinated having its manifoldness implicit. (MS878, p. 12). This initial state, which can be thought of as a boundless pool of sentient quality--utterly undetermined but of magnificent intensity—is the theoretical beginning point from which all growth proceeds:<sup>18</sup>

So, that primeval chaos in which there was no regularity was mere nothing, from a physical aspect. Yet it was not a blank zero; for there was an intensity of consciousness there, in comparison with which all that we ever feel is but as the struggle of a molecule or two to throw off a little of the force of law to an endless and innumerable diversity of chance utterly unlimited. (6.265)

It is utterly vague, immeasurably rich, full of an incomprehensible potential. It is the state of felt potentiality from which the soul of the universe will evolve. This initial potentiality out of which the cosmos grew was an the aggregate of all possible qualities or feelings that could potentially be habitualized and developed into functioning generalities. The first spontaneous attempts at generality from this pool of feeling were the first cosmic abductions. The first abductions would be the very first habituations of feeling from the completely undifferentiated, into “units” of feeling: In “Objective Logic” Piece makes this explicit:

Thus the zero of bare possibility, by evolutionary logic, leapt into the *unit* of some quality. This was hypothetical inference. Its form was:

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<sup>17</sup> See also: 6.201: "Whatever is first is *ipso facto* sentient," 6. 202: "all there is, is First Feelings; Second Efforts; Third Habits."

<sup>18</sup> The metaphor of a boundless pool of quality was suggested to me by Carl Hausman.

Something is possible  
 Red is something  
 Therefore, Red is possible. (6.220)

These “units” of feeling are habitualized in the slightest possible sense of becoming possible ideas. Indeed, Peirce considers these initial qualities to be the Platonic Ideas from which any possible universe could evolve (6.192). The first abductions thus creates the first ideas from which the cosmos evolves.

To say that ideas are habituations of feeling is not to deny that they remain feelings. Peirce suggested that our ideas have various levels of consciousness or feeling. The least structured ideas possess the most feeling, and produce the least habitualized or regular consequences. In other words, they place the least regularization on the spontaneous action of feeling. The most habitualized ideas possess the least feeling; they are habits that have descended into the material, so ridden with habit that spontaneity is all but extinguished. Thus the manifestation of feeling in our experience is the spontaneity of cosmic habit-taking. Each new cosmic abduction is a possible habit of action, a possible law. It is the habitualization of some feeling. If this habit is developed and sustained, the felt element, which we witness as chance spontaneity, will eventually be all but extinguished by habit. An abduction begins as a vague and underdetermined end; if the idea (law) is continually sustained, feeling and spontaneity practically disappear. The importance of this for us will become more obvious as we focus on the role of feeling and sentiment in the growth of the self.

This does, however, lead to a point about the nature of spontaneity in relation to habit. In thinking about the relation of habit to spontaneity in growth, we might be tempted to think of spontaneity as an "exception" to habit. When Peirce speaks about spontaneity in relation to physical habit, for example, he borrows the language of Epicurus and speaks of "swerving atoms," as if spontaneity was a secondary phenomenon to habit, as if habit were more "basic" to the Peircean cosmos than chance or spontaneity: "Epicurus, in revising the atomic doctrine and repairing its defenses, found himself obliged to suppose that atoms swerve from their course by spontaneous chance" ( 6.36). This, I think, is misleading because it suggests that spontaneity is a cosmic accident relative to habit. But if spontaneity is the outward aspect of feeling and habit is in fact a contraction of feeling. So it is feeling that is the more "basic" reality in the Peircean cosmos. When spontaneity occurs it may appear as an exception to law but it is in fact a last withering gasp of a thoroughly habitualized feeling. Thus Peirce, in the same passage in which he speaks of swerving atoms, writes: "Dead matter would be merely the final result of the complete induration of habit reducing the free play of feeling and the brute irrationality of effort to complete death" (6.202). We might also note that the reason Peirce seems to emphasize the diversifying function of spontaneity in cosmic habit-taking when he speaks about the growth of law is that this generalizing element is all but absent in the case of spontaneity contextualized by reified habit. Spontaneity *seeks* to generalize, to reorganize existent habits and actualities under a new general idea. But the extent to which it can perform this "retroductive" function is limited by the habits which contextualize it. Again, spontaneity in the context of

physical law is merely the last gasp of feeling the context of habit. It can still perhaps perform its diversifying function, but it is too tyrannized by habit to generalize more specific habits.

In sum cosmic mind “begins” its growth with the same logical movement as human mind, and its condition is the same. The condition of cosmic habit-taking is a freedom from necessity. Spontaneous possibilities must be allowed to arise. But spontaneity is not random; it is in sympathy with the power of final causation. Intellectual and cosmic abductions are both affected by the cosmic sway of final causality. In Peirce’s discussion of cosmic abduction this is explained by the claim that ideas are in fact “concreted” feelings.

### *Cosmic Deduction*

Deduction draws out the consequences of an abduction. In the growth of belief, deduction produces theoretical consequences. In the growth of physiological habit, deduction draws out physiological consequences, actual series of efficient causation. In the cosmos, deduction does the same at the level of physical law. Peirce speaks directly to the deductive element in cosmic law:

We usually conceive nature to be perpetually making deductions in Barbara. This is our natural and anthropomorphic metaphysics. We conceive that there are Laws of Nature, which are her rules or major premises. We conceive that cases arise under these laws; these cases consist in the predication, or occurrence, of causes, which are the middle terms of the syllogisms. And finally we conceive that the occurrence of



these causes, by virtue of the laws of Nature, results in effects which are the conclusions of the syllogisms. (2.712)

Or, more succinctly: "By deduction, the habit fulfills its function of calling out certain reactions on certain occasions" (6.146).

### *Cosmic Induction*

Cosmic induction is the process by which the results of abduced habits are compared with the telos to which the habit is a means. A habit arises in abduction; it has a deductive consequence. Induction is the process whereby the deduction is compared with the final cause which contextualizes the abduction. Thus abduction tests for failure, failure relative to some final cause. Failure at the level of the inquiring mind is a failure to provide an explanation of reality. For the most part, abductions arise in inquiry where there is a definite purpose of providing an explanation of some difficulty. The abduction that fails to explain reality fails to satisfy the more general end for which it was created. Failure of cosmic abduction is also the failure to satisfy a more general end contextualizing the abduction. But the purpose of cosmic abduction is not an explanation. We are faced with the difficulty of explaining failure on the cosmic level. What could be the comic purpose by which an abduction could be tested?

The final cause contextualizing cosmic abduction can only be understood as the very movement of generalization and diversification itself. It is the very process of

growth. Otherwise put, the telos of the cosmos is the continual harmonization of the cosmos. This is the *summum bonum*, the evolution of concrete reasonableness:

This development of Reason consists, you will observe, in embodiment, that is, in manifestation. The creation of the universe, which did not take place during a certain busy week, in the year 4004 B.C., but is going on today and never will be done, is the very development of Reason. (1.615)

This, of course, anticipates what is to follow in our discussion of agapasm. For as Peirce notes elsewhere:

One cannot well demand a reason for reasonableness itself. Logical analysis shows that reasonableness consists in association, assimilation, generalization, the bringing of items together into an organic whole—which are so many ways of regarding what is essentially the same thing. In the emotional sphere this tendency towards union appears as Love; so that the Law of Love and the Law of Reason are quite at one.<sup>19</sup>

Induction looks back to the final cause which contextualizes abduction in order to see if the new abduction has served its end. Thus if induction is the comparison of a new abduction with the final cause in which the abduction arose, induction on the cosmic level must simply be the success or failure of a particular possible habit of action to sustain itself as a generalizing principle.<sup>20</sup> A successful abduction in the Peircean cosmos is one which contributes to the growth of reasonableness, to the harmonization of reality, to the diversification and generalization of agapastic love.

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<sup>19</sup> From Weiner, *Charles S. Peirce, Selected Writings*, p. 332.

<sup>20</sup> I am grateful to Douglas Anderson for this insight.

### **Chapter Three:**

### **Three Models of Growth**

With a fuller understanding of both growth and agape in hand we can now begin to examine the models of growth that Peirce considers in “Evolutionary Love.” Peirce presents his theory of growth as an alternative to two competing theories. These competing theories of growth, tychasm and anancasm, are offered as alternative descriptions of the logic or structure of growth. When Peirce notes that all three modes of growth are "composed" of the same elements, he is suggesting that all three can be understood by virtue of how they relate habit and spontaneity. And so much of our work below will be dedicated to describing the relation between habit and spontaneity in all three modes of growth and, finally, in agape. In this chapter, we will examine Peirce’s intellectual relationship with Darwinism and with an amalgamate of other evolutionary theories. Tychasm, Peirce suggests, is generalized version of Darwinian evolution by natural selection. Anancasm is less clearly based on any particular theory of another thinker, although Peirce suggests that Hegel, Herbert Spencer, and Clarence King all offer versions of anancastic evolution. Closer inspection shows that Peirce probably had both catastrophism and orthogenesis, two evolutionary theories of the 18th and 19th centuries, in mind as scientific versions of anancasm. Peirce will ultimately wish to show that his agapasm combines and thereby transforms elements of the other

logical models (6.305). Peirce will associate his agapasm with the evolutionary theory of Jean Baptiste Lamarck. Although Lamarck is often referred to as a "father" of evolutionary biology, he was an obscure figure in his own time who only came to any significant fame after Darwin appeared and alternative theories of organic evolution were desired. By the closing decades of the 19th century a "neo-Lamarckian" school had arisen in conscious opposition to Darwin's theory.<sup>1</sup> Perhaps caught up in this neo-Lamarckian movement Peirce understood Lamarck's theory of organic evolution to be "representative and derivative" of the law of mind in the physiological domain. Interestingly, we can no longer hold this association against Peirce in quite the same way. As we will see, elements of Lamarck's theory have resurfaced in contemporary biological debate.

One introductory note of caution is in order. Peirce at times seems to be modeling his three logical theories of growth directly from these evolutionary theories. This seems to be most obviously the case with Darwin, since a discussion of Darwin and his context precedes Peirce's claim that Darwinian evolution is "evolution by chance" (6.296-299). The reality is that these contemporary evolutionary theories were probably all too convenient representatives for three logical theories of growth modeled on Peirce's categorial scheme. This is not to doubt the heuristic value of the categories. It is possible that the categories served their heuristic function and led Peirce to a fair and accurate generalization of contemporary evolutionary theories. This

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<sup>1</sup> Bowler, *Evolution: The History of an Idea*, p. 81.

said, however, it seems wise to be especially wary of falsifications of these actual theories regarding precisely the details that were most relevant to Peirce's triadic scheme. While this does cast somewhat of a shadow over Peirce's exposition, the flip side of this observation is that Peirce's own theory of growth, agapasm, should not be understood as merely modeled off of Lamarck. Agapasm is not *modeled* on Lamarckianism; it is *evidenced* by Lamarckianism. Peirce should then not be understood to be in the game of generalizing an organic theory of evolution to a cosmic theory of evolution, a philosophical temptation that he actually criticizes. Peirce has not generalized Lamarck in the way that others had generalized Darwin. Peirce's discussions of the Lamarckian evolution of mind and culture are possible because he sees a similarity in structure between Lamarckian evolution, habit-taking and Christian love, but the basis of his theory of growth remains his theory of habit-taking as such which seems to have been explicated and developed with no specific attention to either the work of Lamarck or the idea of agape as an evolutionary principle. We will now address the two competing organic theories and their logical affinities in some detail.

## I. Darwin and Tychastic Evolution

Tychastic evolution is a model of growth Peirce created to accommodate what he thought was the general logic of Darwin's evolutionary theory.<sup>2</sup> As the general logical principle behind Darwinism, tychasm is thus more general than Darwinism itself. We will begin with a discussion of the nature of Darwinian evolution, and then compare this to Peirce's tychastic evolution.

Darwin's theory of evolution was composed of two elements that were in and of themselves not original to Darwin. Eliot Sober refers to these elements as a claim about pattern and a claim about process:

The pattern claim was that all terrestrial organisms are related genealogically; life forms a tree in which all contemporary species have a common ancestor if we go back far enough in time. The process claim was that natural selection is the principal cause of the diversity we observe amongst life forms.<sup>3</sup>

What was original about Darwin's theory was how these two elements were combined, applied and evidenced.<sup>4</sup> Elements of natural selection are traceable at least back to Empedocles, who thought that the first life forms were the result of

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<sup>2</sup> See Rulon Well's "The True Nature of Peirce's Evolutionism" for an alternative discussion of Peirce's relation to Darwin.

<sup>3</sup> Eliot Sober, *Philosophy of Biology*, p. 14.

<sup>4</sup> *Ibid.*, p. 7.

combinations of freely floating organs. Organs that were adapted to some purpose survived, and those that did not perished.<sup>5</sup> Darwin and Wallace, as noted above, each independently cited the influence of Malthus on their theories of natural selection. In the early nineteenth century W.C. Wells and P. Mathew had used a principle of natural selection to explain change within a species, but could not provide convincing evidence. Darwin was the first evolutionary theorist to provide convincing evidence for the mechanism he thought was primarily responsible for evolution. Indeed when Darwin and Wallace published their 1858 papers on natural selection in *The Journal of the Linnaean Society*, there was little notice. Only when the wealth of evidence that Darwin had accumulated was offered in *The Origin of Species* did the furor begin.

The claims about pattern and about process might themselves each be usefully be broken down into two smaller claims. The claim about pattern is first, most obviously, the claim that species have evolved, that species are not fixed. Indeed, what this amounts to is the claim that species are in continual flux. This basic element of the pattern claim--one which in itself represented a threat to the doctrine of fixity of species--Darwin had in common with Lamarck: species evolve.

The nature of the pattern, however, is a second claim, and one that distinguishes Darwin from Lamarck even before we address the mechanism or process of evolution. Darwin thought that current species had evolved from a single life form. Darwin

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<sup>5</sup> Monroe Strickberger, *Evolution*, p. 27.

speculated that the pattern of evolution was that of the "tree of life," that all species have descended from a single species or from, at most, a relative few. Darwin writes:

Therefore I cannot doubt that the theory of descent with modification embraces all the members of the same great class or kingdom. I believe that animals are descended from at most only four or five progenitors, and plants from an equal or lesser number.

Analogy would lead me one step farther, namely, to the belief that all animals and plants are descended from some one prototype.<sup>6</sup>

Darwin thought that all species share at most a few ancestors. In the haste to find a scientifically respectable alternative to Darwin in the late 19th century, it was often forgotten that Lamarck did not simply provide an alternative mechanism of evolution.<sup>7</sup>

Unlike Darwin, Lamarck thought that there were numerous lines of descent from complex life forms back to less complex life forms. According to Lamarck's theory contemporaries at different stages of complexity (say the human and the ape) would represent two different genealogical lines. More complex life forms would have been evolving for longer than less complex forms, and so the human would represent a genealogical line older than the ape. Thus while a complex organism is evolved from and related to a simpler organism from its evolutionary past, it cannot be related to a simple organism that is its contemporary. Their differences in complexity betray a separate line of descent. Thus Darwin's pattern of evolution was in itself a departure

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<sup>6</sup> Darwin, *Origin of Species*, p. 446. Darwin goes on to briefly question the wisdom of his use of analogy, but finally makes the tentative conclusion: "Therefore, on the principle of natural selection with divergence of character, it does not seem incredible that, from such low and intermediate form, both animals and plants may have been developed; and, if we admit this, we must likewise admit that all the organic beings which have ever lived on this earth may be descended from some one primordial form."



from Lamarck. For Darwin all species are ultimately related, traceable back to, most likely, a single life form.<sup>8</sup>

Darwin's "tree of life" pattern, we might note, remains a respectable scientific hypothesis, evidenced by the almost perfect universality of the genetic code. With few exceptions, all life forms--plants and animals--use the same (seemingly arbitrary) genetic code. This arbitrary similarity shared by all terrestrial life stands as contemporary evidence for the first element of Darwin's thesis.<sup>9</sup> In sum, the first claim about pattern is simultaneously the hypothesis that species *do* evolve and a hypothesis about how evolving species are related to each other.

The second element of Darwin's thesis, the hypothesis about process, the mechanism, whereby species evolve, also involves two elements: *heritable variations in fitness*<sup>10</sup> and *natural selection*. Heritable variations in fitness may be understood as a set of conditions for natural selection:<sup>11</sup> First, for there to be selection amongst the individuals of a species or amongst species as a whole, there must be variation on which selection can act. Without differences between the objects considered there is no basis for selection. Secondly, this variation must have consequences for the fitness of the organism. In other words, it must affect the capacity of the organism to reproduce. Any trait that has absolutely no relation to reproductive capacity cannot be affected by

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<sup>7</sup> Bowler, *Evolution: The History of an Idea*, p. 82.

<sup>8</sup> And so to correct Peirce, as Rulon Wells does, by suggesting that Lamarck's hypothesis is a supplement, rather than an alternative, to Darwin's simply because Darwin allowed for the inheritance of acquired characteristics is to ignore this fundamental difference between Darwin and Lamarck on the very pattern of evolution. See Wells, "The True Nature of Peirce's Evolutionism," p. 308.

<sup>9</sup> Elliot Sober, *Philosophy of Biology*, p. 42.

natural selection. Thirdly, the traits on which natural selection acts must be heritable. For a population to evolve, the traits selected must be passed on to succeeding generations. Without these variations in fitness being heritable, selection would affect one generation only and could then not be a mechanism of evolution. This does not require that organisms will be exactly like their parents, but only that they will tend to resemble their parents.<sup>12</sup> In sum, then, what is generally referred to quite simply as "variation" is in fact a set of conditions for natural selection *per se*.

Two points of interest about variation might be noted. Darwin's greatest difficulty, famously, was explaining the heredity of variations *per se*. Darwin was not aware of Mendel's work, which was published in 1866 but not appreciated until the beginning of the 20th century.<sup>13</sup> Darwin's adoption of the theory of "pangenesis" was one attempt to explain heredity through the blending of characters of both parents, but, since the blending of characteristics would tend to dilute favorable variations, this hypothesis caused more problems for Darwin than it solved. It was Weisman who disproved the theory of pangenesis years later.<sup>14</sup> Today variations are understood to be the result of random mutations in gene replication. Variation in higher organisms is now understood to be the combined effect of genetic mutations and the creation of new genetic combinations through sexual reproduction. Darwin's confusion about the

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<sup>10</sup> Lewontin, R "The Units of Selection," as quoted by Sober, *Ibid.*, p. 9.

<sup>11</sup> These three points are summarized by Elliot Sober, *Ibid.*, p. 9.

<sup>12</sup> *Ibid.*, p. 10.

<sup>13</sup> "The laws governing inheritance are for the most part unknown. No one can say why the same particularity in different individuals of the same species, or in different species, is sometimes inherited and sometimes not so . . ." Darwin, *Origin of Species*, p. 36.

specifics of heredity did not affect the essence of this thesis about variation, that offspring had a tendency, but not a perfect tendency, to be like their parents. A second point of interest is that the rate of variation provides the amount of opportunity that natural selection will have to work. The more variation, the better the chance for adaptive evolution. Steve Jones notes, for example, how bacteria actually fail to prevent mutations when in an environment where mutation may be the only chance of survival.<sup>15</sup>

The second element of the process component of Darwinian evolution is the thesis of natural selection *per se*. Variations are random; there is no reason that any variation would, in and of itself, result in an adaptive fit, an improvement in the capacity to reproduce. The actual direction of evolution, if it is to take a direction, will then need be the result of some "orienting factor," some external pressure on what variations are likely to be reproduced. In natural selection, it is through destruction of organisms that are slightly disadvantaged that the species as a whole evolves. Because individuals must struggle for their existence, those with even small advantages will be more likely to survive and reproduce. The result for the species as a whole will be an evolution in adaptive fit to the environment as organisms that are less-well adapted fail to survive long enough to reproduce.

Far from being purposeful, then, exquisite evolutionary adaptations in a species turn out to be the result of small random differences between parent and offspring, what

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<sup>14</sup> Monroe Strickberger, *Evolution*, p. 30.

<sup>15</sup> Jones, *Darwin's Ghost*, p. 90

we now know to be the result of random genetic mutations. Natural selection showed, amongst other things, how the appearance of design could in fact be the result variation and a pressure on reproductive capacity. Darwin himself did not believe that natural selection was the only force at work in evolution. "I am convinced," Darwin wrote, "that Natural Selection has been the most important, but not the exclusive, means of modification."<sup>16</sup> It is, however, primarily the effect of natural selection, one type of external pressure, that accounts for directionality in Darwinian evolution.

Darwin's process claim relates back to his pattern claim. Biologists refer to microevolution as evolution within a species. It is microevolution which explains the gradual improvement of adaptive fitness of a species, but it does not lead to new species. This is also known as anagenesis. By anagenesis no more than one species can arise out of a given species. A species will either improve and form a new species in place of the old species, or it will die out. Microevolution, then, does not lead to the branching that gives the "tree of life" its pattern. It is the process of cladogenesis which explains the branching of Darwin's tree of life. This occurs when different members of a species have to deal with different environmental conditions, generally in isolation. Since natural selection will act to better adapt a species to its environment, if different members of a species are, for whatever reason, reproducing in different environments, the result will eventually be different species. This was best exemplified to Darwin by the numerous varieties of finches in the Galapagos Islands. It is therefore through

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<sup>16</sup> Darwin, *Origin of Species*, p. 30.

cladogenesis that a number of species can result from a single species, and that Darwin's hypothesis as a whole, in its two parts, is intelligible.<sup>17</sup>

Peirce thought that Darwin's theory relied upon two factors: chance variation in an environment of relative stability and some external pressures which gave directionality to these random chance occurrences. And for this reason he saw a logical affinity between tychasm and evolution by natural selection. Speaking explicitly about how Darwin's theory could be generalized into a logical theory of growth Peirce wrote:

The theory of Darwin was that evolution had been brought about by the action of two factors: first heredity, as a principle making offspring nearly resemble their parents, while yet giving room for "sporting" or accidental variations—for very slight variations often, for wider ones rarely; and, second, the destruction of breeds or races that are unable to keep the birth rate up to the death rate. This Darwinian principle is plainly capable of great generalization. Wherever there are large number of objects having a tendency to retain certain characters unaltered, this tendency, however, not being absolute but giving room for chance variations, then, if the amount of variation is absolutely limited in a certain direction by the destruction of

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<sup>17</sup> As Jones notes and summarizes, recent biological history has provided a stunning example of evolution by natural selection at work in the evolution of HIV or the human immunodeficiency virus. Since HIV divides once a day, the opportunities for decent with modification are frequent. Further, HIV is notoriously bad at copying itself, having an error rate one million times higher than the human error rate. The result of these two factors combined is that a human infected with HIV will, within a short time, become host to an extraordinary diversity of variations of the human immunodeficiency virus. When pressure is put on the survival or reproductive capacity of HIV (through the human immune system, drugs, sexual habits, death of the hosts, etc.), HIV has an excellent chance of adapting itself to its environment. Whichever viruses have mutated such that they, quite accidentally, cannot be recognized by the body's immune system or by some specific drug, etc., are selected and multiply. The result is the adaptation and evolution HIV. And, indeed each continent, inhabited by peoples with various sexual habits and medical care, has its own adapted set of viruses. We have witnessed the evolution of species through natural selection, for the two main types of HIV--HIV-1, the Western version and HIV-2, more common in Africa and India--do not produce hybrids when they are in the same host and, by at least one common definition of species, represent two species (Jones, *Ibid.*, p. 13). They are each adapted to different sexual pathways of transmission, and each contain subtypes that are even more perfectly fit to particular communities. And so Steve Jones writes, "The human immunodeficiency virus contains in its brief history the entire argument of *The Origin of Species*: variation, a struggle for existence, and natural selection that in time leads to new forms of life (*Ibid.*, p. 15).

everything which reaches those limits, there will be a gradual tendency to change in directions of departure from them. Thus, if a million players sit down to bet at an even game, since one after another will get ruined, the average wealth of those who remain will perpetually increase. Here is indubitably a genuine formula of possible evolution, whether its operation accounts for much or little in the development of animal and vegetable species. (6.15)

In "Evolutionary Love" Peirce said much the same:

Natural selection, as conceived by Darwin, is a mode of evolution in which the only positive element of change in the whole passage from moner to man is fortuitous variation. To secure advance in a definite direction chance has to be seconded by some action that shall hinder the propagation of some varieties or stimulate that of others. In natural selection, strictly so called, it is the crowding out of the weak. In sexual selection, it is the attraction of beauty, mainly. (6.296)

Tychasm represents a generalized version of Darwinian evolution. It includes chance variation and some "orienting factor," though there is no need that the orienting factor be natural selection. In natural selection, evolution is the result of the destruction of certain traits through the failure of organisms possessing these traits to reproduce.<sup>18</sup>

Organisms which do not possess traits advantageous to reproduction will eventually die out thereby affecting the average character of the remainder. In tychastic evolution generally, it is by virtue of the destruction of certain types of habits that the character of

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<sup>18</sup> Goudge notes that Peirce, unlike some of his contemporaries, understood that species evolve because of the effect of certain traits on reproductive capacity. Because survival up to a certain age is essential for reproduction, it is in large part traits that affect survival that are selected. But all that is necessary by Darwin's logic is that the traits passed along are those which make reproduction more likely. Darwin's theory "does not at all require that individuals ill-adapted to their environment should die at any earlier age than others, so long as they do not reproduce so many offspring as others" (1.397). As quoted by Goudge, "Peirce's Evolutionism—After Half a Century," p. 325. For this reason, sexual selection, reproductive attractiveness, also plays a part in Darwin's theory.

the habit-system is altered in some direction. And so tychastic evolution will be the result of independent chance and some outside pressure that effects the survival rate of the new habits and thus gives directionality to the process.

The reason that Peirce equates Darwinian evolution with tychasm lies in the nature of variation. Tychasm is, logically, evolution by chance. What is essential to tychastic evolution is that the variation has no relation to the purposes of its context. Any tendency towards adaptation (however understood) will have to be the result of chance plus some second factor. There is therefore nothing about natural selection *per se* that is in any way essential to tychasm. While natural selection or some other orienting factor is needed to give tychastic evolution direction, the essence of tychastic evolution lies in the relation of chance variation to its context. Let's examine each of these elements in detail.

### ***Random Variation***

The essence of tychasm lies in the fact that the habit-system in which spontaneity occurs has no affect on the spontaneous occurrence. In other words, recalling that all habits for Peirce are end-directed, tychasm is a theory of growth in which the ends of established habits do not affect spontaneity. It is this lack of teleological sway on spontaneity that defines tychasm. In biological terms, it is the randomness of variation that qualifies it as a species of tychasm.

Spontaneity in tychastic evolution is independent of both final cause and efficient cause. That spontaneity is free of efficient cause may perhaps be a simple tautology, but it is this very freedom which will distinguish both tychasm and agapasm from anancasm. A more important observation, however, is that in tychasm the final cause of habit has no effect on spontaneity. If it did not have an effect, spontaneity would not be completely random, and evolution would actually be occurring through the very process of variation. In tychastic evolution, final cause has no effect on spontaneity, and this is the reason that tychastic evolution requires a second orienting factor for directionality. Otherwise put, spontaneity in tychastic growth is best represented by independent chance. Prior moments of spontaneity do not affect present spontaneity. More to the point, the habits which contextualize any given moment of spontaneity—habits which themselves have grown from a spontaneous occurrence—do not affect present spontaneity.<sup>19</sup> It is here, we will see, that we have an essential difference from habit-taking as Peirce had come to understand it by the 1890s.

To help illustrate the precise nature of tychasm, I would like to address a criticism of Peirce by Thomas Goudge. Peirce claims that the only positive element of change in Darwinian evolution is chance. Goudge has argued that Peirce

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<sup>19</sup> Because the chance involved in tychastic evolution is truly independent of past habits and past acts of chance, the only tendencies which tychastic evolution should produce are statistical tendencies. Peirce referred to such processes as "finious." Finiousness, however, is such a weak example of teleology that Peirce debated whether or not to include it as an example of the teleological as such: "If teleological is too strong a word to apply to [the chance action amongst trillions of molecules] we might invent the word finious to express their tendency toward a final state" (7.471). Although Peirce does consider finious processes to be marginally teleological, the spontaneous occurrences themselves are perfectly random and unaffected in their character by final cause. The only "teleology" at work in a finious process is the tendency of perfectly random events to asymptotically approach a statistical mean.



misrepresented Darwin on this point. As we will see below there is indeed a sense in which Peirce indeed misrepresents Darwin, but it is not in the way that Goudge suggests. Although Goudge does point out a number of ways in which Peirce understood Darwin better than most of his contemporaries, he objects to Peirce's categorization of evolution by natural selection as evolution by chance. Goudge suspects that Peirce's version of Darwin fits too neatly into the categorial scheme, and Goudge suggests that it is the "transcendental" element of Peirce's thought which led him to misclassify Darwinian evolution by natural selection as evolution by chance:

A number of present day evolutionists reject this conclusion on broadly the following grounds. Even if one considers only the eliminative role of selection, it is still proper to say that it produces positive results and is creative in the sense in which that word is applied to the activity of a sculptor or an architect. Further more, since selection is essentially a statistical process, it leads to orderly or non-random changes. Hence it is erroneous to suppose that Darwinism attributes the course of evolution to the operation of "chance." Peirce himself caught a glimpse of this point, for he observes that according to the Darwinian theory the interplay of factors results "not in mere irregularity, not even a statistical constancy, but in continual and indefinite progress toward a better adaptation of means to ends" (1.395). Such progress must be an orderly affair. If he had undertaken to explore this matter, he might have reached the conclusion widely held today that selection is an "orienting" or "directing" factor in evolution.<sup>20</sup>

Although I will argue that Peirce did indeed falsify Darwin to some extent (and with the motives that Goudge suspects) Goudge's criticism seems to me to misunderstand the essence of tychasm. Peirce was well aware that natural selection was an orienting or

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<sup>20</sup> Goudge, "Peirce's Evolutionism—After Half a Century," p. 326.

directing factor, as Goudge's quotation of Peirce indeed suggests. It is, however, precisely because natural selection, as a second mechanism beyond variation, is needed to orient evolution that this model of growth was understood by Peirce as being due to chance. It is because tychastic growth is growth in which spontaneity is not affected by the final cause of the habit-system which contextualizes it, that it is growth by chance. Natural selection is needed as a second element because of the independent nature of spontaneity in Darwinian variation. It is this essential difference between natural selection and Lamarckian evolution, we might note, which explains why Lamarckianism needs no mechanism of evolution beyond the variations themselves. Lamarckian variation is *in itself* evolution because the variations are themselves directly related to the final causes of the organisms. As Monroe Strickberger notes, "To Lamarck, variations were not separate from evolution, and therefore they could not be random. Thus selection was not needed to choose adaptive traits."<sup>21</sup> The randomness or "chance" of Darwinian evolution lies in the relation (or the lack of relation) of spontaneity to final cause. New mutations are indeed random, not purposeful, and this is what led Peirce to understand Darwinian evolution as evolution by chance. When Peirce speaks of Darwinian growth as growth by chance he is referring to the variation element of natural selection and not to the selective process itself (which, of course, is itself not teleological either). This is a different claim than that which Goudge seems to be resisting, that the whole process of evolution by natural selection occurs without any

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<sup>21</sup> Monroe Strickberger, *Evolution*, p. 28.

explanation of orientation or direction. Thus to say that evolution by natural selection as a whole is *not* evolution by chance is correct if one takes into account the orienting factor of selection itself, but Peirce was obviously aware of this. What Peirce thought was important for understanding the essence of this model of growth was the independence of spontaneity from teleological guidance.

If Goudge's particular criticism is misguided, however, this does not mean that Peirce is free of the charge of misrepresenting Darwin. Two difficulties arise in Peirce's reading of Darwin, one relatively minor and one that is significant.

First, as noted above, Darwin was least satisfied with his understanding of the mechanism of variety and heredity. That Darwin himself does not claim that all variation is random is clear: "Variability is governed by many complex laws--by correlation of growth, by use and disuse, and by the direct action of the physical conditions of life."<sup>22</sup> Elsewhere, Darwin writes: "From the facts alluded to in the first chapter [on variation under domestication], I think there can be no doubt that use in our domestic animals has strengthened and enlarged certain parts, and disuse diminished them; and that such modifications are inherited."<sup>23</sup> Darwin thought the character of variations was for the most part random, but that there were a number of factors which could affect variation. Use and disuse—in other words the inheritance of acquired characteristics—was one of them. Peirce overlooked this point in his reading of Darwin. In the years following *Origin of Species*, the work of Weisman would be

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<sup>22</sup> Darwin, *Origin of Species*, p. 133.

<sup>23</sup> *Ibid.*

considered definitive proof that characteristics acquired in during an organism's lifetime could not in fact be passed on. More recently, however, evidence has shown that acquired characteristics can indeed be passed on through genetic information. Steve Jones notes that the theory of the inheritance of acquired characteristics is once again accepted, but as a "detail on the edifice of genetics and not its foundation."<sup>24</sup> In other words, Darwin was *correct* to guess that not all variations are perfectly random. Insofar as Peirce claims that the sole agent of change "from moner to man" in Darwinian evolution is chance then, he was and is incorrect (6.296). Insofar as tychasm only requires that chance be of "principal importance" in evolution, however, then Peirce did not err in seeing Darwinian evolution as a species of tychasm despite this minor misreading of Darwin (6.302).

This is related to a finally difficulty, however, one that Peirce may not, in fact, be able to escape from gracefully. Darwin claimed that variations were for the most part due to "chance." But it is not obvious that he meant by chance and what Peirce meant by chance. When Peirce speaks of chance in tychastic evolution, he is speaking of spontaneity: "when I speak of chance, I only employ a mathematical term to express with accuracy the characteristics of freedom or spontaneity" (6.201). And by spontaneity Peirce means, at the very least, a moment not affected by efficient causation. This, however, is not what Darwin meant:

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<sup>24</sup> Jones, *Darwin's Ghost*, p. 104.

I have hitherto sometimes spoken as if the variations—so common and multiform with organic beings under domestication, and in a lesser degree with those under nature—were due to chance. This, of course, is a wholly incorrect expression, but it serves to acknowledge plainly our ignorance of the cause of each variation.<sup>25</sup>

Or, on the nature of variation:

Whatever the cause may be of each slight difference between the offspring and their parents—*and a cause for each must exist*—we have reason to believe that it is the steady accumulation of beneficial differences which has given rise to all the more important modifications of structure in relation to the habits of each species.<sup>26</sup>

While Darwin admitted that the scientific community's ignorance of the laws of variation was "profound,"<sup>27</sup> there is nothing to suggest that he thought that absolute chance was at work in variation. Whereas Peirce speaks of "absolute" or "objective" chance, it seems fairly clear that Darwin was speaking of *relative* chance. Whereas absolute chance is due to the lack of cause, relative chance is due simply to our ignorance of cause, best represented by the throw of the die or the spin of the roulette wheel. Relative chance is simply "determined by other causes which cannot be taken into account," (W 4, 548). It was of relative chance that Darwin was writing. Darwin's continual emphasis on the fact that evolution is the product of chance is meant to distinguish his theory from the belief that species are the result of design. Otherwise put, when Darwin was speaking of chance he was speaking of *chance versus design*.

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<sup>25</sup> Darwin, *Origin of Species*, p. 131.

<sup>26</sup> *Ibid.*, p. 157; emphasis mine.

<sup>27</sup> *Ibid.*, p. 156.

Darwin was explaining how there can be "design without a designer."<sup>28</sup> This is not the same as chance in the sense of *chance vs. the product of cause*. When Peirce speaks of chance (regarding tychasm at least)<sup>29</sup> he is speaking of spontaneity in the sense of that which is entirely uncaused. As Louis Menand, in his recent work, *The Metaphysical Club*, puts it: "Darwin did not think that variations [are sportings] in the sense of being uncaused, only in the sense of being unpredictable."<sup>30</sup>

The fact that so many of Darwin's followers saw him not as invalidating the postulate of mechanical necessity, but, quite to the contrary, as filling what might have been perceived as a gap in its explanatory power, further suggests that Peirce either willfully misinterpreted or misrepresented Darwin on this point. Thus Peirce criticizes the influential interpretation of Weisman who "though he calls himself a Darwinian, holds that nothing is due to chance, but that all forms are simple mechanical resultants of the heredity of two parents" (6.299).

This difficulty is related to the difference between statistical law and tychasm as a model of growth. Statistical law is applied to phenomena in which the causes are too complex or too multitudinous to be known. It does not imply that chance events lack cause. Murphey sums up the situation thus:

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<sup>28</sup> Jones, *Darwin's Ghost*, p. 70.

<sup>29</sup> Menno Hulswit suggests that for Peirce "objective chance" is equivalent to "an absolutely uncaused event" in Peirce's writings at least until 1884. During this period, he notes, Peirce's idea of chance "is not yet placed within the categorical scheme" I will make a similar point below, pointing out that chance in the context of habit-taking cannot be understood as completely outside of the power of cause, for it is within the power of final causality.

<sup>30</sup> Louis Menand, *The Metaphysical Club*, p. 279.

By the term "absolute chance" Peirce means the existence of real indeterminacy as opposed to an indeterminacy arising merely from out of ignorance (6.57f). The latter kind of indeterminacy was well known and fully accepted in nineteenth-century science: it underlies, for example, the kinetic theory of gasses, where although the position, direction, and velocity of every molecule are theoretically determinate at every instant, the difficulties, amounting to impossibility, of calculation make it necessary to deal with them statistically. Peirce's theory differs from the classical one precisely in that for Peirce the position, direction, and velocity are not even theoretically determinate at every instant—they are objectively indeterminate.<sup>31</sup>

Peirce seems cognizant of this understanding of statistical law when he notes that after Darwin's application of statistical law to organic development, the opinion of contemporary science was that "Mechanism was now known to be all, or very nearly so" (6.298, cf. 5.364). But, as Hookway notes, we must resist the temptation to interpret Peirce's *tychism* as a defense of the "modern sounding claim" that fundamental natural laws are statistical: "this is not his primary concern. The claim is one not about the *form* of the laws that govern reality, but about the extent to which reality is governed by law at all."<sup>32</sup> Peirce of course thought that there must be absolute/objective chance to explain growth and diversity: Peirce thought that variety requires absolute chance as its necessary condition. Variety and increased diversification cannot be explained by mechanism (6. 64). This is not the position of Darwin, and it is not meaning of statistical law. As Hookway notes, "Notoriously, it is far from obvious that a deterministic theory cannot allow for the growth of variety and law: the fusion of

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<sup>31</sup> Murphey, *The Development of Peirce's Philosophy*, p. 334.

<sup>32</sup> Hookway, *Peirce*, p. 269.

Darwinian natural selection and Mendelian genetics offers to do just that.”<sup>33</sup> Neither tychasm or tychism, then, seem to be implied by Darwin's adoption of the statistical method. If we suppose that Darwin means that it was relative chance at work in evolution, that the sheer randomness of variation was enough to account for new traits, then Darwin is taking a philosophical position different from tychasm.

If, then, both tychasm and tychism rely on objective chance whereas Darwin's theory seems to rely on relative chance, we might ask if Peirce's claim that there is a “logical affinity” of between tychasm and Darwin be saved. Not, I think, in the way that Peirce had hoped for, but perhaps in a way that will suit our purposes. While Peirce distinguished between absolute and relative chance, he did note that relative chance can mimic absolute chance:

The laws of the two kinds of chance are in the main the same. Speaking first of ordinary and relative chance, a man with an indefinite number of silver dollars who sits down to a perfectly fair game and bets one dollar on every throw of the dice will go on losing and winning in about equal measure. Speaking of absolute chance, the same thing will happen, for if not there would *ipso facto* be a definite tendency towards winning or losing. The only difference between the two cases is this, that the hypothesis of absolute chance is part and parcel of the hypothesis that everything is explicable, not absolutely . . . for that is a self-contradictory supposition but yet explicable in a general way.<sup>34</sup>

Peirce is claiming that absolute chance is completely independent of cause and thus its actions are mimicked by examples of truly independent relative chance such as the throw of a die or spin of a roulette wheel. Whether or not genetic mutations are the

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<sup>33</sup> *Ibid.*, p. 270.



result of absolute chance or relative chance, then, they are, for all intents and purposes, *random*. In the case of Darwinian evolution, it seems that the vast majority of variations are random, which is to say that they mimic absolute chance even if they do not, as Peirce seemed to think, represent moments of genuine spontaneity. This means that while tychasm as a doctrine about the metaphysical nature of growth is not necessarily instanced by Darwinian evolution, there is a perfect analogy between a tychasm of perfectly absolute chance and a truncated version of Darwinism in which *variation* is completely the product of relative chance and is not affected by the environment or by use and disuse.

### ***Selection***

Peirce understood the mechanism of natural selection, the second element of the process of evolution, quite well. Recall, this second element is something like a conditional claim: Insofar as there are external pressures (including the threat of non-survival) that threaten the capacity of an organism to reproduce, those organisms that are best adapted to their environment will be most likely to reproduce. We have seen that in Darwinian evolution final cause has no affect on chance. Slight variations, errors, occur in the reproduction of genetic material from one generation to the next and these variations, or mutations, create slightly altered genotypes in the offspring. These

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<sup>34</sup> *Writings of Charles S. Peirce: A Chronological Edition*. Vol. 4, p. 549.

variations are not intended to improve the offspring. They are random and independent. And so chance in itself will tend to no end that is not the result of pure statistical law. Evolution will only take on a definite directionality by virtue of external pressure or pressures which affect the likelihood of survival of the new elements. It is these external pressures that give the process direction and an appearance of genuinely teleological growth. The progress is quite accidental, the unintended, non-teleological consequence of external pressure.

This Peirce understood well, and for our purposes there is only one point of particular interest: Natural selection is one of any number of mechanisms that could direct the action of chance. Tychasm as a doctrine does not require that natural selection as such is the orienting mechanism of evolution. Tychasm requires only that the moments of newness have no special, non-random relationship to adaptive fit. Once this element of fortuitous variation is satisfied, the “growth” is tychastic. The direction of the growth, the character of the tychastic growth, will then be determined by the orienting factor.

## II. The Varieties of Anancasm

A second model of growth which Peirce addressed was anancasm. Under the heading of anancasm fall a number of theories of evolution—biological, philosophical and cosmological--which understand the evolutionary process to be the result of either an inner or outer necessity. Peirce specifically mentions “catastrophism” as a biological example of external anancasm and he implies that "orthogenesis" would be an example of internal anancasm.

Catastrophism was an evolutionary theory that was popularized by the followers of Cuvier in the late 1700s and early 1800s.<sup>35</sup> Peirce mentions Clarence King as a contemporary proponent of this theory (6.17).<sup>36</sup> Catastrophism was essentially designed to explain what appeared to be the fossilized remains of extinct species. Within the intellectual context of the eighteenth century the very hypothesis of extinct species was understood to be a challenge to the "Great Chain of Being" doctrine, a theory which had been generally accepted since Aristotle. Although others, including Voltaire and Leibniz, had questioned the concept of a perfect hierarchy in Being and hypothesized that the gaps in hierarchy could possibly be explained by extinct species, catastrophism was the first theory to explain evidence of extinct species naturalistically. Its basic thesis was that the geological evidence of unfamiliar species could be

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<sup>35</sup> Monroe Strickberger, *Evolution*, p. 28.

explained by drastic changes in the environment caused by, for example, floods, glaciations, or earthquakes.<sup>37</sup> Catastrophism supposed that evolution was not supposed to have proceed by small insensible steps, but was rather the result of relatively rare and discontinuous periods of upheaval. This feature of catastrophism distinguished it not only from Darwin and Lamarck, but also from other theories of geological change such as the theory of Charles Lyell.

This theory had lost most of its followers by Peirce's time, and perhaps Peirce's inclusion of it was partially motivated by its relation as a second to Peirce's version of Darwin, thus creating a first and second from which Lamarck and agapasm could emerge as a third. Peirce interpreted catastrophism as ascribing changes in organic life to be the necessary result of occasional and pronounced changes in the environment. While catastrophism as a biological theory may have fallen out of favor by the 1890s, the doctrine of necessity, of course, had not. It was this necessitarian element that Peirce seized upon in order to categorize catastrophism as itself as species of anancasm. Peirce does not mention that many catastrophists had ascribed the drastic changes in the environment to actual divine recreations of species. This theory, however, had the benefit of being amenable to religious interpretations of the history or meaning of these sudden changes.

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<sup>36</sup> 6.17; the editors of the *Collected Papers* cite King's *Catastrophism and the Evolution of Environment*, 1877.

<sup>37</sup> Monroe Strickberger, *Evolution*, p. 17. Strickberger notes that Leibniz's view was itself evolutionary. What was new about catastrophism was not its hypothesis of development, but its application of the scientific method to geological evidence.

Inward anancasm is represented by what would seem to be orthogenesis. Peirce does not mention orthogenesis explicitly, but he appears to be speaking of this theory when he writes: <sup>38</sup>

Many naturalists have thought that if an egg is destined to go through a certain series of embryological transformations, from which it is perfectly certain not to deviate, and if in geological time almost exactly the same forms appear successively, one replacing another in the same order, the strong presumption is that this latter succession was as predetermine and as certain to take place as the former. (6.299)

Orthogenesis was in fact a fairly good fit for Peirce's internal anancasm, arguing that evolution is not random and that it is carried along by internal forces towards a predetermined end.<sup>39</sup> Peirce mentions a number of theories, including that of Weismann, which he thinks are versions of internal anancasm. They are anancastic because growth or evolution is explained by internal necessity, advancing along a "predetermined line" (6.313).

All three theories of growth present versions of the relation of habit to spontaneity in growth. The general logic of anancasm is considerably simpler than that of either tychasm or agapasm. Whereas tychasm requires the action of two elements (chance and an external "orienting" factor) and whereas agapasm will require a strange confluence of chance and final cause, anancasm requires only that spontaneity be extinguished. It is evolution without the "living freedom" of spontaneity (6.305). It is evolution by force.

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<sup>38</sup> Goudge, "Peirce's Evolutionism—After Half a Century," p. 326.

In what sense can we speak of a telos of anancasm? At one point, speaking of internal anancasm, Peirce speaks of anancastic evolution as if it had a telos, albeit a fated telos: "[I]t makes development go through certain phases, having its inevitable ebbs and flows, yet tending on the whole to a foreordained perfection. . . . The whole movement is that of a vast engine . . . with a blind and mysterious fate of arriving at a lofty goal." (6.305). Perhaps because Peirce was in this passage discussing Hegel as an example of internal anancasm, he wisely avoided claiming that anancasm was purposeless and admits that it may have a "goal." And yet Peirce elsewhere speaks of anancasm as purposeless. What distinguishes anancasm generally from agapasm, we are told, "is its purposelessness" (6.312). Hegel notwithstanding, what Peirce objects to about the doctrine of necessity in general is that it leaves no room for purpose. This is more clearly the case in external anancasm than it is in internal. We might say then that there is some ambiguity in the teleology of anancasm. The internal variety seems distinctly more teleological than the external variety. This can be seen not only in these logical doctrines of growth as such, but also in their organic counterparts. Orthogenesis, with its inner striving for development, is a more traditionally teleological doctrine than catastrophism, in which blind force was considered a possible cause of organic growth. Raposa does not note this ambiguity, but uses Peirce's discussion of internal anancasm to support his claim that anancasm is a "teleological perspective."<sup>40</sup>

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<sup>39</sup> Bowler, *Evolution: The History of an Idea*, p. 268.

<sup>40</sup> Raposa, *Peirce's Philosophy of Religion*, p, 75.

Perhaps we might conclude that what they both have in common is not a lack of telos, but a lack of freedom within a teleological context. Even internal anancasm, Peirce notes, is blind. If organic growth is anancastic, there is no place for purpose or even blind chance in organic development. If cosmic growth is anancastic, physical laws—better, physical *force*--would be an immutable cause of all cosmic activity. If personal growth were anancastic, then, our development, our growth, would be beyond our control. As we consider anancastic evolution in the person, then, it will be this lack of freedom to adjust or contribute to our own telos that will define anancastic growth.

Both tychasm and anancasm, then, turn out to be doctrines that are not satisfactorily teleological for Peirce. In tychasm the teleology is too weak: any tendency in a direction is simply the consequence of external pressures on chance variations. Without external pressure there would be no tendency to the chance actions other than statistical tendencies. Any final causes which may happen to contextualize a spontaneous occurrence will have no affect on the spontaneity. Variations are random; “orienting factors,” themselves blind and purposeless, give the process direction. In anancastic evolution the telos is so fixed that it seems indistinguishable from brute force. Ends, if they exist, are at best beyond the control of any purposeful being. While anancastic evolution might itself have an end, it leaves no room for freedom to affect those ends. It is a teleology that does not develop.

Peirce has prepared us for his claim that “genuine” growth will require some mixture of freedom and spontaneity.

### III. Lamarck, Habit-taking, and Agapasm

I have suggested above that the main strand of argument in "Evolutionary Love" is Peirce's claim that growth by habit-taking shares a logic with growth through agape. In this section we will examine how Peirce makes this connection. We will see that Peirce uses the biological evolutionism of Lamarck as something of a middle term between habit-taking and agape: At 6.299 Peirce explains that Lamarckian evolution is structurally similar to habit-taking. At 6.300 Peirce explains that Lamarckian evolution is structurally similar to agape. It is through the middle term of Lamarckian evolution that Peirce makes the claim at 6.302 that his theory of growth can be called agapasm. The connection between his general theory of habit-taking and agape is in part possible because he has shown to his own satisfaction that the structure of Lamarck is one with both habit-taking and agape.

Further, by turning Lamarck into an example of both agapasm and habit-taking, Peirce was able to show that a scientific theory of organic evolution was similar in structure to his theory of habit-taking, that his general theory of growth was evidenced by a theory of organic growth. To emphasize a point made earlier, Peirce is not modeling his theory of growth on Lamarck, but is arguing that the similarities between his theory and Lamarck's is evidence for his general theory of growth. This



distinguishes Peirce from thinkers of his time who were in the game of generalizing an organic theory of evolution into a cosmic theory of evolution. His strategy will provide him with a theory of organic evolution which could be understood as derivative, and thus evidential, of his theory of cosmic evolution. We will begin then with a brief review of Lamarck's actual evolutionary theory.

Lamarck's *Zoological Philosophy* was published in 1809. Lamarck, unlike most in the catastrophism camp, did not think that species became extinct. This much he had in common with the traditional "Great Chain of Being" doctrine. Fossils, he thought, were evidence not of extinct species, but of organisms that had since evolved into present day organisms.

Lamarck supposed that species evolved into one another through gradual adaptation to the environment. Evolution was governed by two "Laws of Nature": The "Principle of Use and Disuse" and "The Inheritance of Acquired Characteristics." The former stated that frequent use of an organ gradually strengthened the organ while infrequent use of an organ would gradually weaken it until it disappears. For organisms not beyond the years of their physical development the felt needs of the organism would cause certain traits to change. The relation of the organism to its environment would dictate what traits will be more or less useful. The principle of use and disuse is hardly controversial in itself. It is obvious that organisms acquire characteristics. What was unique to Lamarck was that he understood this process to have an affect on future generations. The second principle, "The Inheritance of Acquired Characteristics" stated that the effects of use and disuse were passed on though reproduction to

succeeding generations. Thus evolution occurred during the life cycle rather than through reproduction. Organisms could sense the needs of their environment, respond through modification of their own features, *and* pass on these features to their offspring. Thus Lamarck proposed that acquired characteristics could be heritable. Through the inner striving of the organism to achieve better adaptation to its environment, the organism could alter not only its phenotype, but also its genotype. The process was driven by a striving for perfection that was inherent in all living things, and was thus distinctly teleological. As the organism perfected itself and, through reproduction, the species, it increased in complexity. This inner striving was occasionally described in a quasi-mystical tone and occasionally associated with the supernatural. This inheritance explained the evolution of species. The process of evolution was so gradual, however, that Lamarck thought that the very concept of species was a falsification of the continuum of evolving organisms.

A few points of detail will be helpful for our purposes. We can see from the above that for Lamarck variation and evolution were one and the same. This means that variation itself, as a single principle, accounted for growth. This is because variation for Lamarck was not random, but was purposeful. Because variation itself was end directed Lamarck needed no second principle beyond variation to give its effects direction. Whereas Darwinian evolution needed the action of natural selection to orient the vast majority of variations which were random, Lamarck needed no such second factor in his teleological scheme. We will now explore Peirce's connections between habit-taking, Lamarck, and agape.

### *Lamarck and Habit-taking*

Peirce writes:

Evolution by sporting and evolution by mechanical necessity are conceptions warring against one another. A third method, which supersedes their strife, lies enwrapped in the theory of Lamarck. According to his view, all that distinguishes the highest organic forms from the most rudimentary has been brought about by little hypertrophies or atrophies which have affected individuals early in their lives, and have been transmitted to their offspring. Such a transmission of acquired characteristics is of the general nature of habit-taking, and this is the representative and derivative within the psychological domain of the law of mind. (6.299)

In the following paragraphs Peirce goes on to show how Lamarckian evolution combines elements of both tyochastic and anacastic versions of evolution. Lamarckian evolution will combine and transform freedom and necessity. How does he find these elements in Lamarckian evolution? His discussion of the relation of agapasm to Lamarck's actual doctrine of organic evolution is in fact quite short. We know from our own understanding of habit-taking, however, that Peirce will need to show that Lamarckian evolution at once requires a freedom from and a sympathy with antecedent conditions.

Peirce first argues for the place of spontaneity in Lamarckian evolution. This Peirce does by noting that the action of Lamarckian evolution "is essentially dissimilar to that of physical force" (6.299). Though the Lamarckians suppose that some

variation is the result of mechanical cause, the "chief factors of their first production were the straining of endeavor and the overgrowth superinduced by exercise" (6.299). Since endeavor is end-directed, Peirce argues, it is essentially mind-like, not mechanical. Here Peirce is relying on his earlier discussions in the *Monist* series on the nature of mind. We know that for Peirce the teleological is the psychological: "Mind has its universal mode of action, namely, by final causation" (1.269). We also know that spontaneity is a necessary condition of the psychological: "by supposing the rigid exactitude of causation to yield, I care not how little—be it but by a strictly infinitesimal amount—we gain room to insert mind into our scheme" (6. 61).

We should note that Peirce claims that spontaneity is a necessary condition for teleology despite the fact that the theories of anacasm discussed above would both seem to be teleological. The difference, if we are to save Peirce, is that if there is a telos in anacasm, it is fixed, and since it is fixed, this would eliminate the need for spontaneity. While spontaneity is necessary for an active mind with ends in development, it might not be required for the carrying out of a final cause that was predetermined, much like a moving billiard ball is at once evidence of a past final cause, a designer, and yet completely determined. Thus while something may show evidence of telos, this does not make it capable of growth. For Peirce something that is "actively" mental must be capable of adaptation and growth. Since Lamarckian evolution occurs through adaptive variations, variations attuned to final cause, it displays an active mentality that requires spontaneity as its necessary condition.

The capacity for adaptation shown in Lamarckian evolution means that spontaneity must be present. If our study of growth in the cosmology is correct, this means that Lamarckian evolution cannot be reduced to efficient causation. This is why Lamarckian growth is different in kind from catastrophism and orthogenesis and cannot be reduced to mechanism. While the *transmission* of acquired characteristics will be a clear example of the establishment of habit, there must be an allowance on the part of habit for newness such that variations can arise through spontaneity. Thus the first ingredient of Peircean habit-taking, a freedom from efficient causation, would seem to be present in Lamarckian evolution.

When we consider the peculiarity of the nature of spontaneity in Lamarckian evolution, however, we see that spontaneity cannot be free of all cause, for it is not free of the influence of *final* cause. The very essence of Lamarckian evolution for Peirce lies in the fact that the spontaneity of variation is affected by purpose. In the effect of final cause on the independence of spontaneity in Lamarck (and in the lack of effect of final cause on the independence of spontaneity in Darwin) that we see the difference in the two types of teleology at work in these respective models of growth. Agapastic growth is not simply the result of independent chance, but it is in some measure influenced by the ends of that which is growing. This is the more robust teleological element to growth that ultimately distinguishes Peircean growth from mere alteration or change. What distinguishes Lamarckianism from Peirce's Darwinism is that the moment of spontaneity is *not* entirely unaffected by its antecedent conditions. Unlike Darwinian variation which requires a second factor to orient growth in any definite non-

finious tendency, Lamarckian variation *is* evolution, evolution that is merely sustained through reproduction. The moment of spontaneity in Lamarckian evolution, then, must be affected by final causality. Peirce's vivid description of spontaneity in Lamarckian evolution makes this clear.

Habit is mere inertia, a resting on one's oars, not a propulsion. Now it is energetic projaculation (lucky there is such a word, or this untried hand might have been put to inventing one) by which in the typical instances of Lamarckian evolution the new elements of form are first created. 6.300

While "energetic projaculations" are free from efficient causation, and therefore represent a freedom from established habits, they still are influenced by habits of the organism, not through efficient cause but through final cause. The "energetic projaculation" is distinctly teleological because it is in sympathy with the final causes of the habit of the animal. While spontaneity is free from the force of efficient causation, it is still influenced, though not determined, by the sway of final cause. The essential difference between tyochastic evolution and evolution by habit-taking lies in the fact that in the latter there is some relation of spontaneity to its context. It is spontaneity's ability to "catch" the purpose of the habit-system in which it is embedded which preserves the teleological dimension of habit-taking:

In genuine agapasm . . . advance takes place by virtue of a positive sympathy among the created springing from continuity of mind. This is the idea which tyochasticism knows not how to manage. 6.304

While spontaneity is affected by habit, it is not determined by habit. It is within the sway of final cause, but it is free from efficient cause. In Lamarckian habit-taking, newness is not entirely independent of what has come before it. Although spontaneity *may* produce something with no relation whatsoever to its context, spontaneity *tends* to be in sympathy with the general purpose of the habit-system by which it is contextualized, and it is sympathetic to an extent that is not explicable by absolute chance. On the one hand, spontaneity has no *necessary* relationship to its context. It is a newness that cannot be reduced to mere ignorance of cause, as we have in relative chance. To echo Hausman's observation, the newness would not be predictable even if we had full knowledge of all the antecedent conditions of the novelty. But insofar as chance is indeed affected by the continuity of mind and the final cause which contextualizes it, it is not entirely independent of all cause. It is in sympathy with final cause. And so moments of spontaneity will be in harmony with contextualizing final causes to an extent that is not proportionate to the perfect independence of absolute chance.

The distinguishing feature of spontaneity in habit-taking, then, is that it is not *reducible* to antecedent conditions. For spontaneity is indeed affected by cause, and if it were not, Peirce's habit-taking would collapse into a tychasm where spontaneity requires some second factor to give it directionality. Peirce notes that this is the derivative of the Law of Mind, and we can see why. The new element requires spontaneity, but it "catches" the general purpose of the organism. Its capacity to be affected by final cause is a function of the continuity of ideas.

Peirce provides an example of habit-taking in the growth of an idea that we recognize as familiar from our earlier discussion of habit-taking. In a passage which anticipates Peirce's 1908 discussion of musement, he speaks of the "first step in the Lamarckian evolution of mind" as "the putting of sundry thought into situations in which they are free to play" (6.301). In other words, the first step is an allowance, a permission. The first step in growth is the restraint of habit, the allowance of an arena in which spontaneity can occur. This restraint allows for the possibility of abduction, or the creation of a new idea. As Douglas Anderson notes, Peirce is aware that there are "conditions for the creative development of hypotheses."<sup>41</sup> To the extent that thought approaches the limit of necessity, new ideas will be less and less possible. Our initial abduction will be vague, and its growth will require the continual replication of the process of habit-taking. For this to be possible, it must be given the room to develop with its own integrity and not to be reduced to our habitual formulae. As Peirce notes in "Evolutionary Love," "It is not by dealing out cold justice to the circle of my ideas that I can make them grow, but by cherishing and tending them as I would the flowers in my garden" (6.298). An element of tyochastic evolution, freedom, is necessary for growth. But this arena is limited by intent. There is an allowance of freedom that is not unaffected by the telos of its context. Anderson makes this point by noting that musement is "controlled play and not mere play."<sup>42</sup> An idea arises within the sway of

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<sup>41</sup> Douglas Anderson, *Strands of System*, p. 145.

<sup>42</sup> *Ibid.*, p. 147.



telos. And so the teleological element of anancasm plays a role in growth by habit-taking.

Peirce insists that the other models of growth are themselves at work in the cosmos. It is not simply elements of tychasm and anancasm that are operative. Tychasm and anancasm are operative themselves though to a less significant degree than agapasm. But the most general description of cosmic growth for Peirce could not be reduced to either of these alternatives. Peirce thought habit-taking to be the only model that could sufficiently explain growth continuously at all levels of cosmic activity. For it is the only model that is properly teleological, that allows for active mind in a "developmental teleology," a theory of growth in which new ends appear and grow.

### *Lamarck and Agape*

Recall that Peirce's analysis of agape led him to the philosophical conclusion that agape, as a formula of evolution, had a "circular movement." Of agape, Peirce had written, "The movement of love is circular, at one and the same impulse projecting creations into independency and drawing them into harmony" (6.288). Peirce takes this description of love to be logically similar to the description of habit-taking as he has just explained it though Lamarck. On Lamarckian habit-taking, Peirce had written:

Thus, habit plays a double part; it serves to establish the new features, and also to bring them into harmony with general morphology and function of the animals and plants to which they belong. (6.300)

Peirce's own explanation of the relation between habit-taking and agape is simply the claim that the structure of habit-taking, as laid out at 6.300 is equivalent to the structure of love, as laid out at 6.287. This explanation is not entirely clear. I think however, that the distinction between final and efficient causation can help make sense of Peirce's comparison. It seems that the second factor in the respective descriptions above is fairly clearly the affect of final cause. In both passages new elements are harmonized into the habit-system, which is to say that they come to play a role in the ends of the habit-system. This harmonizing affect would seem to be the product of the teleological nature of habit-taking. The first elements of each description, however, are not obviously equivalent. Love is said to "project" new features but Lamarckian habit-taking is said to "establish" new features. These are, I would suggest, in fact not equivalent. The establishment of new features is the action not of the habits that contextualize the spontaneity, but of the habit that arises from the spontaneity. In other words while there is some definite habit-system that could provide a context for the energetic procreation of Lamarckian evolution, it is habit in general, the simple fact that habit-taking occurs, that "establishes" new features.

I think the difficulty can be alleviated by suggesting that the first element of each description of habit-taking is, whatever else, an allowance of spontaneity. I will therefore suggest that what difference may exist between these two descriptions is not

more basic than an essential sameness which they presuppose: both Lamarckian habit-taking and agape begin with an allowance of a newness that cannot be reduced to efficient cause. I would now like to use this distinction between final and efficient causation, along with some insights from the first chapter, to develop Pierce' claim that habit-taking is isomorphic with the structure of love.

Recall the paradox of agape: Agape fosters a certain type of the growth despite the fact that it does not force this growth. Agape has the power to transform its object into something or someone that is in harmony with agape. Within the freedom that agape provides, its object comes to desire to make its ends agapic. We can now see how this can be understood to share the logic of growth by habit-taking.

In the allowance of spontaneity by habit, Peirce saw a tolerance that was consistent with the permissive element of agape. Growth requires a restraint of antecedent force, a suspension of the chain of efficient causation. Agape is, characteristically, an allowance of difference, novelty, aberration. Peirce saw that something like agape is necessary to provide the freedom from coercion that is essential for growth. In his insistence that spontaneity is both necessary for growth and incompatible with efficient cause, Peirce has indeed created a theory of growth that is insofar logically similar to agape. As Hausman notes, agape is the principle which "makes *room* for the origin of what is radically new in a world of regularity and order."<sup>43</sup>

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<sup>43</sup> Carl Hausman, "Eros and Agape in Creative Evolution—A Peircean Insight," p. 11.

But agape's allowance of freedom has an effect on its object. Agape has a final cause, an end—the harmonization of its object. Agape has, I would suggest, a desire even though it is a non-acquisitive desire. And the power of this final cause is such that the new ends of the beloved that develop in the space of agape are slowly affected by agape and have the tendency to eventually become consonant with the ends of agape itself. Habits that develop spontaneously in the space of agape have the tendency to "catch the purpose" of agape. Again, quoting Hausman, agape is "directed chance."<sup>44</sup>

Peirce saw a similarity between this power of agape and the power of habits to affect the newness that arises in their context in growth by habit-taking. Unlike tyochastic evolution, habit-taking requires no second factor to orient it. Habit-taking is itself a teleological process in which new habits that arise spontaneously have a tendency to catch the purpose of a habit-system.

In sum, Agape exercises restraint—manifested in the tolerance by established regularities for what is different, but it is also transformative—manifested in the tendency of spontaneity to grope towards the vague ends which contextualize it. Agape uses no force, but it has the power to subtly direct growth through the attractive nature of its ends. Peirce rightly saw that the relationship between habit and spontaneity in agape is analogous to the relationship between habit and spontaneity in growth by habit-taking. And so, whatever Peirce's motives, we cannot claim that Peirce has falsified his own theory of growth in order to accommodate his religious interests.

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<sup>44</sup> *Ibid.*, p. 21.

It seems that Peirce was correct to see an analogy between Christian love and growth by habit-taking. We will now take advantage of some of the specifics of Peirce's theory of habit taking in order to construct a more developed Peircean contribution to the philosophy of love.

#### **IV. A Peircean Theory of Agape**

Peirce has appealed to the traditional Western idea that love engenders growth and, though his theory of habit-taking, offered a precise explanation of how this might be. I think this is a contribution of paramount importance. We are now in position to begin rearticulate the precise nature of Peircean agape now that we understand precisely how Peircean growth is agapic. Despite the fact that Peirce has used a traditional model of agape to make his case for agapasm, when we look at some of the specifics of how agape operates in the Peircean cosmos we see that what we are offered is in fact one particular rendering of agape, one that is in some respects in tension with the traditional model.

*Agape and the Development of Eros*

Agape is of course traditionally distinguished from eros for the reasons we noted in the first section. In his analysis of agape, Anders Nygren provides the sharpest possible contrast between agape and eros and goes to great lengths to stress their absolute incommensurability:

There cannot be any real synthesis between the two forces so completely contrary to one another as Eros and Agape—the Eros which, beginning with a sense of poverty and emptiness, seeks God in order to find in Him satisfaction for its own wants, and the Agape which, being rich through God's grace, pours itself out into love. The measure in which such a synthesis appears to have been successful is from the point of view of the Agape motif the measure of its failure, for it has meant the betrayal of Agape.<sup>45</sup>

The thesis of Nygren's work is that the two "fundamental motifs" of eros and agape are in principle irreconcilable. This is not to say that actual historical understandings of agape have been unadulterated by eros. The majority of Nygren's classic work is, in fact, dedicated to explaining the checkered history of agape as it has incorporated various Hellenistic and Judaic influences. These compromises, Nygren insists, were necessary for its survival: "If Christianity had not sought contact with the most powerful religious motif of the time, it could only have continued to exist as an obscure sect. The agape motif might have been longer preserved in its purity, but only

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<sup>45</sup> Nygren, *Agape and Eros*, p. 232.

at the price of becoming ineffective." <sup>46</sup> But each of these compromises comes at a price, and price of compromising the real meaning of Christian love. And so Nygren concludes that the traditional distinction between agape and eros is in fact significant, important and should be maintained.

And yet as we might expect of a Peircean version of most any philosophical concept, Peirce' conception of agape cannot, I would suggest, be simply reduced to one side of a traditional dichotomy. Synechism was after all a logical principle for Peirce, a logical principle that lead to various metaphysical hypotheses about continuity. Matter and mind, subject and object, inner and outer: each of these dichotomies was recast along a continuum in Peirce's philosophy. While I do not want to suggest that Peirce had any *intention* of constructing a "theory" of agape *per se*--much less one that was on a continuum with eros<sup>47</sup>--that is precisely, perhaps predictability, what he did.

In short, my suggestion is twofold: First, Peircean agape is to be understood as a power which brings about the development or growth of eros. Second, the growth of eros will involve a transformation of eros into agape, a transformation of self-acquisitive desire into the desire to nourish the growth of others. This second element of my thesis is also the suggestion that agape and eros are continuous. Agape is not, as it is sometimes thought, without an end, without desire. Agape is teleological, and its end is the very growth of the beloved's desire. Each of these points, I think, is implied by Peirce's claim that the logic of habit-taking is agapic.

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<sup>46</sup> *Ibid.*, p. 231.

<sup>47</sup> Recall Peirce's distinction between eros and agape at 6.287.

We have seen that habit-taking is the process by which habits grow. Within the continuity of agape, habits grow by virtue of the spontaneous beginnings of new possible habits. But habits are teleological; they are ends. The growth of habit is the growth of new possibilities which both diversify existing ends and redirect other habits towards new ends. These ends Peirce explicitly associated with desires. In Peirce's well-known example of the baking of an apple pie example—"An apple pie is desired" (1.341)—he makes an explicit connection between desire, thirdness and law:

The dream itself has no prominent thirdness; it is, on the contrary, utterly irresponsible; it is whatever it pleases. The object of experience as a reality is a second. But the desire in seeking to attach the one to the other is a third, or medium.

So it is with any law of nature. (1.341-2)

Desires are thirds. As thirds, they are habits. My suggestion is that, in Peirce's anthropomorphic cosmology, it would not be misleading to suggest all thirds are more or less of the nature of desires. Perhaps it is better to put the matter this way: Insofar as we are justified in calling habit-taking agapic by virtue of a general similarity of structure between habit-taking and agape, we are equally justified, I would suggest, in calling habits erotic. Like a law or habit of nature, a desire is general. Like a law or habit, a desire is a final cause, a formal principle. Like a law or habit of nature, a desire actualizes itself through efficient causation, through specific concrete actualities guided by its generality. Desires are generalities that mediate between possibilities and actualities; they are general habits of action that can be satisfied in any number of



concrete ways. In Peirce's cosmology, habits, as ends, function analogously to desires. They are teloi. They are more or less erotic.

In the Peircean cosmos, of course, habits cannot be perfectly erotic in the sense that their final causes are immutable. If they were perfectly erotic, they would be incapable of development. They would be laws absolute, rather than habits. As Hausman notes:

[I]f eros were the exclusive dynamic principle, of a process, that process would not be creative, for it would not allow a change in the subject as determined by its initial direction . . . The structure of the process, the manner of developing, and the character of the subject would be predetermined according to the conditioning called for in the telos.

Since habits are not laws, since they do allow for the development of telos, we can speak of Peircean habits being more or less erotic in the sense that they are more or less habit-ridden, more or less capable of growth.

To the extent that habits functioning according to a determined end, they are functioning erotically. When we speak of habits insofar as they, as Hausman phrases it “permit” the spontaneous appearance of new possible habits, they are acting agapastically. When we think of the growth of a habit-system, then, it is an *agapic* allowance of spontaneity which allows for the development of eros. Insofar as a habit-system allows for growth, it is agapic. Insofar as it is determined, it is erotic. Insofar as the more general and open habits of a habit-system allow for development within that habit system, we have an agapic allowance of the development of eros. And so I would suggest that insofar as habit-taking for Peirce is the allowance of the development of

ends, we can think of Peircean agape as the allowance of the development of desire. At the most general level we may define Peircean agape as a power that allows for and yet influences the independent development of eros.

Secondly, insofar as all habits are teleological for Peirce, even the cosmic habit of agape, even the very habit of harmonizing that which is different or novel, itself has an end. A second theoretical result of Peircean agape as I have interpreted it is therefore that *Peircean agape is continuous with, rather than opposed to, eros*. I suggest this for two reasons: First, I think that agape itself has what we might call an end in the Peircean cosmos. Hausman seems to sense this point when he writes:

"Peirce's agape is inseparable from eros with respect to the *goal or final ends reached by love* . . . Agape is not pure spontaneity. Rather, it is manifested as directed chance; it is manifest in a teleological continuum."<sup>48</sup>

Agapastic habit-taking, as we have seen, has a final cause. Peircean agape is not an overflowing and spontaneous love that simply gives without hope or a desire of its own. Agape is not without an end. Agape itself has a purpose. It has an end, but its end is the most general end; it is the harmonization of all ends. As we have seen, it is common to speak of agape as "overflowing" and "unmotivated." This is true insofar as agape is compared with acquisitive eros. But this overflow is not disinterested. Agape is not like the sun, nourishing growth in its fullness with no care for the objects that it sustains. Agape is teleological, it has an end; unlike the sun it desires the growth of its

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<sup>48</sup> Hausman, "Eros and Agape in Creative Evolution—A Peircean Insight," p. 21.

objects. Agape desires that its object grows into an appreciation for and a further desire to pass on agapic love. Agape desires, has a telos in, the harmony of ends. Insofar as agape does have a telos it is continuous with eros. Secondly, eros itself does in fact develop into agape in the Peircean model. The growth of habit is the growth of concrete reasonableness. The growth of habit is the growth of generality, of continuity, of shared ends. It is a movement of generalization in which various ends come to be affected by wider ends. Agape for Peirce is not discontinuous with eros; insofar as it is teleological, it can be thought of as the full development of eros into non-acquisitive desire.

When we think of habit-taking from the perspective of the allowance of spontaneity, then, it is agapic. From the point of the habits that allow for new habits, growth functions agapastically. From the point of view of the possible habits that arise, this growth means the development of ends, desires, eros. Agape, in allowing for spontaneity, allows for the development of desire. Agapic habit-taking is the process by which these ends grow.

### *An Historical Precedent*

Peirce is well-known for claiming that “Originality is the last of recommendations for fundamental conceptions” (1.368). The likelihood that a philosophical conception is true is greater to the extent that earlier thinkers, pondering the same problems, came to a similar conclusion. In order to both clarify Peirce’s

specific understanding of agape and to lend it the support of one of the most influential thinkers on Christian love, I will briefly suggest a basic similarity between Peircean agape and Augustinian *caritas*. Peirce's specific understanding of the power of agape, as a power not just to transform, but to transform desire, has historical precedent. It is, in fact, one of the mixtures of agape and eros that Nygren sees as a perversion of the pure agape motif as he understands it.

Augustine's philosophy is, according to Nygren, representative of what he calls the "Alexandrian world scheme." The Alexandrian world view combines two movements in the logic of salvation: a descent of God to the human, which often accounts for the world's creation, and the ascent of the human back to God, in which the human achieves salvation.<sup>49</sup> The connection between the Alexandrian world scheme and Augustine is not coincidental, for the former is best represented, according to Nygren, in neo-Platonism. For Plotinus, for example, "the whole world-process is summed up in the double conception of the out-going of all things from the One, the Divine, and the return of all things to the one."<sup>50</sup> Here we have a faint intimation of the Augustinian synthesis of eros and agape. While there is a distinct move away from the erotic worldview of Plato, in which the objects of desire, the Forms, do not descend, the descent in Plotinus is still the descent of an erotic God; it is the descent of God as eros, not God as agape.

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<sup>49</sup> Nygren, *Agape and Eros*, p. 188.

<sup>50</sup> *Ibid.*, p. 189.

In Augustinian *caritas*, however, the descent of God is not erotic, but agapic. In order to show the nature of divine love, Augustine distinguishes between *amor ex miseria*, the love arising from need, and *amor ex misericordia*, love that "springs out of fullness of goodness and benevolence."<sup>51</sup> God's love is the love of fullness which, characteristically, transforms its object. This is Augustinian grace.

The object of this love, however, is the human. It is the human beings with his human desires. The Augustinian self is essentially erotic; human love is erotic love. But our eros is at first a vulgar eros, a *cupitas*, directed at earthly things:

And I asked : "What is wickedness?" and found that it is not a substance but a perversity of the will turning away from you, God, the supreme substance, toward lower things—casting away, as it were, its own insides, and swelling with desire for what is outside it.<sup>52</sup>

I knew with certainty that it was to you that I must cling, but I knew too that I was not yet capable of doing so.<sup>53</sup>

The self's desires are in need of transformation, but this transformation cannot be effected by the self alone. Even if the self begins to desire God and begins the ascent, its very pride at its accomplishments will prevent the self from reaching the Divine.<sup>54</sup>

The self is in need of divine grace, which is to say that it is in need of divine love. But while human love is erotic, divine love is agapastic. Our full love of God is not possible without the help of God's love. Our eros as *developed* eros is not possible

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<sup>51</sup> *Ibid.*, p. 469.

<sup>52</sup> Augustine, *Confessions*, Bk. 7, Ch.16.

<sup>53</sup> *Ibid.*, Bk. 7, Ch.17.

<sup>54</sup> "Without God's grace, as manifested in the sacrifice of the son of God, the self will not be humbled enough for its final erotic fulfillment." Nygren, *Agape and Eros*, p. 472-475.

without God's agape. In Augustine, agape functions as a condition for the development of desire. Within the power of love, the desires of the self develop. The ends of the self mature from love of earthly things to the love of God. Without God's grace there can be no ascent to the divine.

If God had not condescended to us in his *gratia*, we could never have ascended to him in *Caritas*. This is what makes grace so extraordinarily important in Augustine, but also limits it. Without grace there is not access to God. Without grace, *Caritas* has no air beneath its wings for its flight to God. Grace “prevents” our very deed--but as the means precedes the end. *The end is and remains the ascent of Caritas to God*. This brings us back to Eros.<sup>55</sup>

Agape is the necessary condition of human growth, of the development of eros.<sup>56</sup>

Here, I take it, we have an understanding of the function of agape similar to Peircean agape. There are, of course, important differences between Peircean agape and Augustinian *caritas*. First, the transformed self in Augustine is focused finally, not on creation, but on God. For Augustine, as Nygren phrases it, "God's love itself has as its aim love to God; God reveals His love to us ultimately in order that we may learn rightly to love Him."<sup>57</sup> It is notoriously unclear where precisely we are to find God in Peirce. Conflicting passages suggest that God is variously transcendent and immanent. But, wherever the Peircean God resides, the development of the desires in the Peircean

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<sup>55</sup> *Ibid.*, p. 527.

<sup>56</sup> Because of Nygren's interest in reclaiming a purified agape from the Bible itself, he does not see the Augustinian synthesis of eros and agape as agape at all: "In Augustine a new view of love emerges. The meeting of the Eros and the Agape motifs produces a characteristic third which is neither Eros nor Agape, but *Caritas*. *Agape and Eros*, p. 451. My claim is that the Peircean version of agape, similar in structure to the Augustinian synthesis, is indeed a legitimate understanding of agape.

self does not produce a desire to transcend creation. To the contrary, Peircean agape tends to bring about a mature desire to take part in creation, a desire to “execute our little function in the operation of creation” (1.615). A second related difference is that the growth of eros in Augustine does not transform the nature of eros itself, only the object of eros. Though the Augustinian self’s desires have grown they remain self-acquisitive and distinctly erotic. The growth of eros in Peircean agape, however, transforms eros into agape. These differences notwithstanding, in Augustine *caritas* I believe we have a version of agape that performs the same general function as Peircean agape, the transformation of ends.

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<sup>57</sup> *Ibid.*, p. 453.

## **Chapter Four:**

### **Growth and Love in the Self**

It is now time to offer a reclaiming of the Peircean cosmology. We have seen how the Peircean cosmos is built upon a model of growth itself modeled on the human experience of growth in inquiry. Peirce has further shown how this model of growth can be understood to be similar in structure to the Christian model of growth through agape. Both habit-taking and agape bring about growth by allowing for new and diverse possibilities in a teleological context. In this final chapter I would like to explore some of the ways in which Peirce's anthropomorphic cosmology might be used to help clarify the experience of personal growth.

#### **I. The Growth of the Self**

To descend from the cosmological level to the personal level requires that we employ the same vehicle that was used in the ascent from the intellectual to the cosmological. In other words, we must take advantage of Peirce's claim that self too is an idea. In various contexts throughout his corpus and with various turns of phrase



Peirce claimed that the self was a general idea. In early writings, Peirce had referred to the self as a symbol (5.314). In "Man's Glassy Essence" Peirce notes that "a person is only a particular kind of general idea" (6.270). "Personal character," we learn in "The Law of Mind" is "a general idea, living and conscious . . ." (6. 156). Personality is famously described here as a "teleological harmony in ideas."<sup>1</sup> Similarly, in 1898, Peirce refers to the self as a "bundle of habits" (6.228).<sup>2</sup> This seems to suggest, as we might expect, that the idea of the self is, like the idea of the cosmos, itself composed of ideas. The status of the self as an idea is so secure that Peirce actually refers to ideas as little selves: "I have an idea . . . it is a little person" (6.289). "Every general idea has the unified living feeling of a person" (6.270). As Vincent Colapietro has shown, unpacking what these and other later descriptions of the self imply goes some distance towards lending recognizable significance to Peirce's earlier, somewhat cryptic claims that that the self is a sign.<sup>3</sup> We will take advantage of Colapietro's synthesis of the early and late Peirce in what follows. For the moment, I would like take advantage of this isomorphism between the self and the cosmos by considering the possible

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<sup>1</sup> I will consider personality to be the most important element of selfhood and generally speak of the self and the personality as equivalent.

<sup>2</sup> Colapietro sees a shift in Peirce's thinking about the self that is reflected in the difference between these descriptions of 1892 and 1898. By 1898, as Colapietro notes, the self has evolved into an agent capable of deliberate and self-controlled conduct. Without denying the importance of this shift, I do not see it reflected, as Colapietro does, in the two different descriptions as such. Recall that "a connection between ideas is itself a general idea, and . . . a general idea is a living feeling" (6.155). This seems to me what Peirce was getting at in 1898 by suggesting that the self, as a bundle of habits, is unified by its own particular "quale," the felt quality of the general idea that gives the self its "suchness" along with its felt unity. And this also seems to be what Peirce was saying in 1892 by calling the person a living feeling developing over time.

<sup>3</sup> In a nutshell, Colapietro shows how self-control ideally leads to the merging of one's ends (i.e. one's self) with cosmic ends, the result being that the self becomes a sign of cosmic ends "since such agents

implications of the claim that the self is an idea in development. This is not to suggest that the self in no way differs from other ideas, much as we could not claim that belief is no way different from a physical law. Colapietro, for example, suggests that mind relates to the self as genus to species.<sup>4</sup> By focussing on the similarities between the self and the Peircean cosmos, however, I believe we can unearth a wealth of experiential insight.

Given the fact that the cosmology seems to be a reflection of the experience of the human growth of mind, one might wonder why it is necessary to use the cosmology at all rather than the model of human inquiry from which it originated. To some extent, focusing on the theory of inquiry itself will be helpful. It seems that the growth of the self must include, to some extent, the growth of belief. The evolution of our understanding of both the world and ourselves is integral to the growth of the self. This said, however, intellectual growth is not full personal growth. We must avoid this temptation to reduce self growth to intellectual growth. This, incidentally, is an error easier to perceive in theory than it is in practice. In fact it seems quite likely that intellectual growth could function as substitute for the full growth of the self, resulting in people that are intellectually quite developed but otherwise quite immature. For reasons I will elaborate upon below, I do not think that mere growth in inquiry necessarily results in the growth of the self. A second point is that while there is

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perform the essential function of a sign—namely, to render inefficient relations efficient" (p. 97). This will be addressed in further detail below. See pp. 90-97 of *Peirce's Approach to the Self*.

<sup>4</sup> Colapietro writes, "the sort of mind that can evolve into a self must possess the capacities to feel, to act, and to learn." *Ibid.*, p. 87

perhaps something analogous to agape in Peirce's notion of intellectual musement--musement functioning like an agapic allowance of freedom within a very broad teleological context--the concept of musement cannot accommodate the interpersonality of the agape that is integral to personal growth.

If we are to look to the cosmology, understanding the self as an idea, the characteristics of ideas that we have emphasized in the previous chapters must of course be likewise applicable to the self as an idea. The self must be considered a generality. This implies that the self, like all generalities, cannot be reduced to the concrete actions that follow from that generality. The cosmology makes clear that this does not imply the self in any way lacks existence or embodiment. Existence, of course, is the hallmark of actuality. But any given actuality, any given existent, is itself a habit: "The existence of things *consists* in their regular behavior" (1.411). Matter itself is still to some extent mind-like, if only barely. By stressing the generality of the self, we are not denying its embodiment, but only emphasizing, with Peirce, that "personal character [is a] general idea, living and conscious now . . . already determinative of acts in the future to an extent to which it is not now conscious" (6.156). Like the cosmos, the self can be considered as a complex of nested habits, a habit-system or an arrangement of generalities which makes the self to some degree predictable on both the "physical" and "psychical" levels.

Reintroducing the teleological dimension of Peircean ideas creates system of nested habits in which the most general habits hold teleological sway over the more specialized habits. Habits, we have seen, are simultaneously ends in themselves and

means to more general ends. Each habit is a vague end which both exercises some teleological control and is affected by some more general telos. Any habit can therefore be thought of as the final cause of its own smaller habit-system. Thus, for example, an athletic habit of action can be both a final cause organizing other habits and a means to some more general end.

This implies that the self, as an idea, possesses some final cause, a most general and vague final cause, which governs with more or less influence over all other final causes of the self. This is the case even if very general ends of the self are in significant conflict. The self by this model would therefore be understood as a system of hierarchically organized ends. With Hookway, one might think of persons as “hierarchically organized in the pursuit of overriding aims.”<sup>5</sup>

I have suggested above that the analogue of beliefs, reflexes or laws for the self would be desires. The habits of action of the self may be thought of as desires. To the extent that the self is capable of growth it is capable of both the generalization and diversification of its habits. If this is the case then the growth of the self would be understood as the growth of desires. Indeed Peirce’s sole usage of the phrase “developmental teleology” was offered as a description of the developing personality (6.156). The growth of the self would essentially be the generalization and diversification of desire. If this is correct we would expect to find that our experience of personal growth in others or in ourselves essentially involves both a development of

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<sup>5</sup> Hookway, *Peirce* 275.

our desires and an increased facility at actualizing our desires. The growing self should be growing from desires that seem relatively limited to desires that seem more general.

The process of growth that both generalizes and diversifies habits will require the spontaneous appearance and development of possible ends or desires. Just as the abduction of belief allows possible beliefs to emerge within the context of other more general beliefs, so too the growth of habit in the self requires the emergence of new possible habits within the context of more general habits. These possibilities become real for the self, become felt or understood as ends, in what we might call “existential abduction.” These possibilities are developed into working habits through “existential deduction.” They are then finally tested against the more general ends of the self in “existential induction.” We will discuss each of these elements in detail below.

### *Existential Abduction*

It may be useful at the outset to remind ourselves that the growth of ideas, growth by habit-taking, is a response to habit-failure. Habit-taking is the response to the failure of some habit that is serving as a means to a more general habit. A specific idea fails to function as a means to the general telos of a philosophical paper; a musical idea fails to satisfy the more general telos of a piece of music. In each case, failure of habit is a failure relative to a more general telos. Applying this to the self, this means that the growth of the self will involve a response to failure of the habits of the self to satisfy either a more general end of the self or the most general end of the self. This

means that the nature of habit-failure at the most general levels of selfhood will be a function of the most general end or ends of the self. It is within the context of some telos that any given habit is deemed a failure.

When the most general end of the self deems a habit a failure, existential abduction begins. An existential abduction involves the emergence of a possible habit of action. Insofar as abductions present new possible habits at the most fundamental, general levels of the self, abductions will present new possible ends or desires for the self as a whole. These new ends appear as possible desires, much as possible beliefs appear in intellectual growth. Depending upon the generality of these new ends, they may come to completely redefine and redirect the self or simply redirect some subset of ends within the self.

We have seen that one paradoxical element of Peircean growth is the relationship that the spontaneous abduction has to the habits which contextualize it. The freedom by which possible habits of action are allowed to arise is of course a condition of growth. Without a freedom for spontaneity, habit-taking at any level cannot occur. Since the ideas of the self are considerably less habit-ridden than, for example, the physical ideas of the cosmos, this freedom that is necessary for growth would seem to be easily accounted for in the self. We also know, however, that in the Peircean model the habits which define any regularity have a tendency to reify. Habits tend to strengthen over time: "In whatever manner the mind has reacted under a given sensation," Peirce notes in the cosmological context, "in that manner it is the more likely to react again" (6.148). Habits of thought gain inertia the longer they remain

functional, and so there is a tendency of habits of action to harden. There is a tendency of habit to reinforce itself, a tendency to tendency that is an essential characteristic of Peirce's conception of mind. A result of the claim that the self is an idea and composed of ideas is that our habits have an extraordinary force behind them simply because they are our habits. Our own personal habits carry an inertia for each of us, and the longer our particular habits have to harden, the less likely it becomes that we will tolerate having them disrupted. In particular reference to our habits of belief Peirce notes, "we cling tenaciously, not merely to believing, but to believing just what we do believe" (5.372). While this implies that there is a healthy conservatism built into human functioning--a natural likelihood that the habits which have maintained us into the present will continue to maintain us into the future--this also suggests that there is a tendency to fixity built into the human self. There is a natural disinclination to growth built into the very nature of human functioning.

The result of this is that while the self always remains capable of growth in principle, it may reach a point at which growth becomes unlikely in practice. This state of the self in which its habits or ends essentially become fixed might be called "closure." The closure of the self is a practical danger which results from the tendency of habits to harden. For new ends to arise, the habits of the past must function as tendencies rather than necessities. When the habits of the self become hardened, when they approach the theoretical limit of necessity, growth becomes practically impossible. We are perhaps reminded of Plato's tyrannical soul, the self enslaved to a single desire that both subordinates all other habits of the self into its service and extinguishes any

possibility of new possibilities. “He is by far . . .” Plato notes, “ the most wretched of all men.”<sup>6</sup>

While Peircean growth requires a freedom from the potential tyranny of habit, it is also the case that the spontaneous abduction of new ends cannot to be unrelated to or discontinuous with the idea of the self. Spontaneity is both free from the force of efficient causation and in sympathy with the power of final causation. In the self, analogously, new ends must be in sympathy with the telos of the idea that is the self. For the growth of the self to be the “genuine”--as we shall see, rather than the “degenerate”--the spontaneous appearance of possibilities must be in sympathy with the vague final cause of the self. Possible habits of action for the self are guided into abduction by the sway of the vague final causality of the self.

As I have emphasized above, the spontaneous possibility of abduction seems to be influenced by final causality through *feeling*. In inquiry abduction is the inference based most on the felt guidance of instinct. This claim about instinct in inquiry is on a continuum with Peirce’s doctrine of sentimentalism in practical matters.

Sentimentalism was for Peirce an epistemological doctrine which claimed that "great respect should be paid to the judgments of the sensible heart" (6.292). This was a doctrine, it should be recalled, that a life-long logician came to after years of examining the roles of reason and instinct in practice and theory: “If I allow the supremacy of sentiment in human affairs, I do so at the dictation of reason itself” (1.634). I would

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<sup>6</sup> Plato, *The Republic*, 578b



like to suggest that that sentiment plays an essential role in the evolution of the self. In existential abduction the self feels new possible habits of action that are in sympathy with its widest ends.<sup>7</sup>

We have already reviewed what we might consider to be the metaphysical underpinnings of Peircean sentimentalism: Ideas, for Peirce, are “concreted” feelings. As regularized or habitualized feelings, ideas/habits can be felt even if they cannot be articulated. If we consider the self to be a general idea, this means that the self will have a particular quality of feeling. Peirce, in fact, gave a name to this felt aspect of ideas in the notion of the “quale.”<sup>8</sup> Peirce actually applied this notion of the quale to describe the felt dimension of all ideas including the idea of self:

There is a particular quale to purple, though it be only a mixture of red and blue. There is a distinctive quale to every combination of sensations so far as it is really synthesized—a distinctive quale to every work of art—a distinctive quale to this moment as it is to me—a distinctive quale to every day and week—a particular quale to my whole personal consciousness. (6.222)

Peirce specifically goes on to note that it is this felt quality of the idea that gives the self its unity. Referring to the quale, Peirce writes:

Of course, each personality is based upon a "bundle of habits," as the saying is that a man is a bundle of habits. But a bundle of habits would not have the unity of self-consciousness. That unity must be given as a center for the habits. (6.228)

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<sup>7</sup> On Peircean Sentimentalism see John Sheriff's *Charles Peirce's Guess at the Riddle*, pp. 83-89.

<sup>8</sup> On the “quale” element or firstness of selfhood. see Patricia Muoio's “Peirce on the Person.”

The unity Peirce is speaking of seems to be the felt continuity between all habits of the self, a continuity that is the result of the felt aspect of the most general idea that is the self. This “interior” dimension of ideas by which ideas can be felt even when they cannot be articulated explains how the growth of the self can be teleologically influenced by feeling. In existential abduction we feel new possibilities as more or less appropriate to our own developments. Practically what this means is that sentiment should be a useful, though not infallible, guide in the growth of the ends of the self. We might note that the more fundamental an abduction is--the more general a possible habit of action is--the more essential the role of feelings will be. The self’s most general ends are so pervasive and so influential that coming to a full discursive knowledge of these ends is likely impossible. This would require that self be able to reflexively articulate the very ends which hold sway over its intellectual activity. Abduction in the self at the most general levels therefore *ought to be* the most reliant on feeling.

The growth of the self by this Peircean model would therefore be the allowance of the development of ends or desires as guided by sentiment or feeling. As we will see in our discussion of existential induction, this does not necessarily mean the self must actualize every desire that arises. Possible ends can be deemed likely failures before they are actualized. This does mean, I think, that the self, if it is to grow, must at least experience and emotionally acknowledge desires that do arise. The psychologist Nathaniel Branden writes of emotions in general: “every emotion need not be acted on . . . . What the organism does require for its well being, however—especially in the case

of emotions that are more than superficial and momentary—is that they be experienced and acknowledged.”<sup>9</sup> Branden goes so far as to suggest that the frustration of the experience of emotion actually causes much of the destructive behavior humans engage in: “Few of the irrationalities people commit—the destructive behavior they unleash against themselves and against others—would be possible to them if they did not first cut themselves off from their own deepest feelings.”<sup>10</sup> I think, incidentally, that it is important to distinguish the felt recognition of desire from an in-depth understanding of the desire. Acknowledgement of desire need not involve an understanding of the origins of a desire. It need not even involve a clear articulation of desire. Desires must be experienced and acknowledged. This need not require articulation of the desire. Indeed, in many cases, this articulation may not be possible. Again, we must resist the temptation to reduce personal growth to the growth of conscious belief. While conscious understanding of one’s desires may become more necessary to the extent that these desires have been actively kept from our conscious awareness, personal growth is not a process reserved for those intellectually and financially capable of the analysis of their desires.

The second paradoxical element of Peircean growth refers to the simultaneous generalization and diversification of ends. Consider the growth of an athletic talent. One learns, finally, how to serve a tennis ball by “catching” the idea that generalizes the habits of the ball toss, the bend of the knee, the bodily posture, and the swing and

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<sup>9</sup> Nathaniel Branden, *The Disowned Self*, p. 27.

<sup>10</sup> Nathaniel Branden, *The Disowned Self*, p. 24

follow-through of the racquet. There is an abduction, contextualized by both freedom and purpose, by which these specific habits are generalized. As they are generalized in spontaneous abduction, growth begins to occur. But while this abduction of a new possible habit generalizes more specific habits, this process is itself the diversification of more general habits. This habit may represent the diversification of a desire which may very well define the self, perhaps the desire for fitness or athletic superiority or even wealth. From the point of view of the most general habits of the self, the most general desire of the self, this is diversification, the creation of a new means to an existing end. From the point of view of the specific physical habits that were combined, this is generalization, the creation of a new end to which they shall be imperfect means.

While much of our growth probably occurs at this level or even at less general levels, our most fundamental growth occurs at the most general level, at the generalization of the basic ends which the self pursues. Insofar as new possible ends are allowed to arise at this level, insofar as the self is not so habit-ridden or--as we shall see--fearful that fundamental growth is not possible, the most significant growth of the self will involve generalization of our most pervasive ends.

For a clarification of the role of the generalization of ends in the growth of the self we need look no further than Peirce's own discussion personal growth in his theory of self-control.<sup>11</sup> Insightfully, Peirce notes that it is primarily in the choice of our ideals

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<sup>11</sup> What follows above is a fairly limited account of self-control. For a thorough analysis see Edward Petry's, "The Origin and Development of Peirce's Concept of Self-Control" and *Self-Control in the Philosophy of Charles S. Peirce*. Petry distinguishes three stages in the development of Peirce's theory of self control, each of which can be coordinated with one of the Peircean categories. In the first stage the

that we exercise control over our conduct. Our actions, our concrete dealings with the world, will follow more or less according to our general account of ideal conduct. In choosing a most general habit of action we are tentatively deciding what sort of more specific desires and concrete actions will be in our future. Our choice of ends is the most significant freedom we possess. Peirce's mature understanding of self-control includes the process by which the self comes to a capacity to deliberate about possible habits of action, resolving, ideally, to adopt more and more general ends (cf. 5.539). As noted above, Colapietro has synthesized Peirce's account of self-control with Peirce's earlier discussions of personality and with his earliest claims about the self.

Colapietro's conclusion is that authentic selfhood is something to be achieved through the continual surrender of the ego's ends to wider ends: "Peirce maintained that the realization of the self demanded a series of acts by which the self surrenders itself to ever more inclusive ideals."<sup>12</sup> The process of growth is the process of coming to more and more general desires, a process of self-surrender. The self that does not grow beyond limited acquisitive desires is a "vulgar delusion of vanity" (7.571). This is because, as Colapietro notes, "self-transcendence alone leads to self-possession."<sup>13</sup> In other words it is through the transcendence of acquisitive desire, the desire to satisfy only the ego, that selfhood is achieved. Through the process of self-control the self's ends grow beyond the erotic. The self, in fact, comes to desire to itself play a part in the

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emphasis is on freedom from temptation. In the second stage, the emphasis is on the struggle to attain self-mastery, and in the third stage, the emphasis is on the adoption of reasonable ideals. The discussion that follows draws primarily from Peirce's mature understanding of self control.

<sup>12</sup> Colapietro, *Peirce's Approach to the Self*, p.96

agapastic work of creation. The self's ends ideally become so general that they are one with her community and, finally, for Peirce, one with cosmic mind itself. The self grows into a love for "what is good for all on the whole" (5.339 fn1):

Self-control seems to be the capacity for rising to an extended view of a practical subject instead of seeing only temporary urgency. This is the only freedom of which man has any reason to be proud; and it is because of love of what is good for all on the whole, which is the widest possible consideration, is the essence of Christianity, that it is said that the service of Christ is perfect freedom. (5.339)

In other words, the most ideal existential abduction occurs when the self feels attracted to the possibility becoming a means to a higher end, to the end of agapastic growth itself. Thus the self grows into a desire to itself be a channel of agape, to be in service to agape. This, I think, would be the case whether the power of agape that fosters our growth is considered to be divine or human.

This explains how the generalization of even our most general ends can also be considered a diversification. For Peirce, existential abductions at the most general level occur when the idea that is the self is spontaneously generalized, when the self's most general end is generalized. But this habit-taking, like all habit-takings, must occur in a teleological context. Thus the self is in fact a diversification of an end that is more general than the self. We grow into ideas that are more general than the idea of any given self.<sup>14</sup> As Colapietro notes, "The higher ideals take possession of us rather than

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<sup>13</sup> *Ibid.*

<sup>14</sup> To be precise, this is what occurs in all abductions since Peircean ideas are always more general than any given self. For our purposes it is only necessary to emphasize this for the most fundamental abductions of the self.

we of them.”<sup>15</sup> In this sense the self that comes to embody these ideals is itself, in its generalizing act, a diversification of the ideals themselves. Colapietro summarizes the matter:

Peirce's early account of the self as a semiotic process and his later portrait of it as an autonomous agent fuse in this vision of the person as an agent through whom the ideal of reasonableness becomes more concretely embodied in habits and institutions, in individual character and social context . . . In our very capacity as agents we are signs, a means by whereby the first of absolute loveliness is brought into creative contact with the second of brute existence.”<sup>16</sup>

As we approach the ideal of the most general desires, the desire only to foster the agapastic growth of concrete reasonableness, we become diversifications of this very movement of agapastic growth in the cosmos.

In sum, when we speak of our most fundamental growth as human beings, we are speaking of the generalization of desires. The full growth of desire, of eros, is the transcendence of eros, the growth beyond selfish ends into agapic ends. Though it may be unlikely that we are capable of growing into perfect agape--as Hausman notes, "the agapastic love of these [finite] agents must be infected by eros," for finite "permissiveness . . . seeks while it gives"<sup>17</sup>--the continual evolution towards the end of becoming one with agapic love is the highest end towards which the self can aspire. Echoing Augustine, echoing Plato, echoing the Hindu doctrine of the development from the path of desire to the path of renunciation, Peirce's model of growth suggests that we

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<sup>15</sup> Colapietro, *Peirce's Account of the Self*, p.96.

<sup>16</sup> *Ibid.*

<sup>17</sup> Hausman, "Eros and Agape in Creative Evolution—A Peircean Insight," p. 23

grow as our desires become more admirable until, finally and ideally, our desires are no longer acquisitive. Where Peirce leaves each of these traditions behind is in his conception of the growth of ends as a process which ultimately brings us to desire continued agapastic growth as such in both ourselves and in others.

Given what we have learned about the structure of agape in the preceding chapter, it is now clear how exactly agape brings about personal growth through the development of eros. Agape provides the freedom necessary for the growth of ends. But within this freedom, however, agape influences its object through final causation. The beloved can, if she chooses, feel desires, feel ends that are more general than those which possess her. If the self allows itself to feel the power of love, it will be drawn to desire to embody and impart that love. And so the result of agape is that the desires of the self come to develop from self-acquisitive erotic desires into the agapastic non-acquisitive desire for further agapastic growth. This, in theory, is how agape brings about the growth of the self. In the final section, I will attempt to provide a more experientially compelling account of this theoretical model. For the moment, however, two more comments on these intricacies of abduction may help avoid confusion.

First, I think that this model of growth works with or without the claim that there is a divine source of agape. Human agape, though less than ideal, has the power to foster growth. And so when the self accepts the most general end of agape itself, this can be the acceptance of either human love or divine love.

Second, while we would expect that the more developed self would be a more unified self--we generally take a strong antagonism in the self, a self in conflict with



itself, to be self less developed than one that operates harmoniously-- this does not mean that the “unified” self is necessarily a developed self. Like the underdeveloped vague potentiality of the cosmos, the undeveloped person—say the personality of early childhood—is unified but not diversified. Part of growth is the diversification of habit, the and so the unity of the developing self must be the product of unification.

### ***Existential Deduction***

Existential deduction occurs as we draw out the consequences of abduced possibilities. At the intellectual level, Peirce makes clear that deduction is a mental exercise that draws out the “would be’s” of a possible belief. At the physiological level Peirce makes it clear that deduction is a concrete execution of a possible habit of action. At the cosmic level, Peirce says explicitly that deduction involves the consequences of law for actuality. At the level of the growth of the self, deduction involves drawing out the consequences of abduction *either* theoretically or actually.

We may, for example, allow ourselves to feel a desire for some specific act of violence. Depending upon how general this desire is, it may or may not threaten to reorganize the entire self by a new telos. If we allow ourselves to feel this desire, if we allow the abduction of this end, then we have the option of clarifying the consequences of such a desire in practice or clarifying them in theory. The human is capable of preparing for the testing of some abduced desire without actually pursuing the abduced end in practice. If we clarify the consequences of such an end in practice we will have a

tentative certainty about the short term consequences of the abduced desire. This clarification will involve some series of efficient causation that satisfies the end of the abduction. If we clarify the consequences of the habit in theory we will have a less certain but also less risky clarification of the consequences of these ends. This capacity of the human being to see the consequences of certain ends is especially important, I would suggest, given the fact that the growth of the self will often involve the felt acknowledgment of desires that may not be accepted by social custom or law. This deductive inference, when it is carried out in theory, seems to be one ingredient of something akin to Dewey's notion of "deliberative imagination":

Deliberation is an experiment in finding out what the various lines of possible action are really like . . . But the trial is in imagination, not in overt fact . . . Thought runs ahead and foresees outcomes, and thereby avoids having to await the instruction of actual failure and disaster. An act overtly tried out is irrevocable, its consequences cannot be blotted out. An act tried out in imagination is not final or fatal. It is retrievable.<sup>18</sup>

We will discuss this again below as we consider how possible ends are tested against the more general purpose which they would serve.

It is through repeated deduction that a habit is formed. And so however the self draws out the consequences of a possible habit, this will function as a precedent making it more likely that the self will act that way in the future. The abduced end may be for example, the creation of a broader network of friends. Once the possible habit is spontaneously abduced, the process of habit creation will involve continual deductions

from this abduction which will eventually result in a habit. Through this continued deduction (along with corrections suggested by induction) the habit is developed.

### ***Existential Induction***

In inquiry, induction tests possible beliefs by some general telos, usually to see if they explain reality. In physiology, induction tests a possible habit (say the scratching of one's leg with the other heel) to see if it serves a more general telos. In the cosmology, habits are tested for their capacity to contribute to concrete reasonableness. In each case, abductions, after being tested by some more general telos, are deemed successes or failures. By virtue of either one's actions or of one's reflection about the consequences of one's actions, the self can test possible desires in "existential induction." This means that the self tests possible ends by some more general end to which it would be a means. The inductive element of growth in the self is the testing of the lived or predicted consequences of a possible end by a more general end that it would serve. The abduction fails insofar as it does not serve the more general end.

Anderson points out how a dialogue or interplay occurs between the consequence of abduction and the feeling which contextualizes the abduction in the creation of a work of art.<sup>19</sup> A writer, for example, captures a thesis for her paper; she

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<sup>18</sup> John Dewey, *Human Nature and Conduct*, p. 132.

<sup>19</sup> See Anderson's *Creativity and the Philosophy of C.S. Peirce*, p. 149.

judges the thesis and its consequences against her initial feeling. The abduction may or may not be deemed appropriate, may or may not have quite captured the initial felt purpose. As deduction draws out initial instantiations of the abduction, induction tests the abduction against its felt telos. Through this process both the paper and the telos of the paper evolve.<sup>20</sup> Likewise in the self, when the “deliberative imagination” is used to predict the appropriateness of certain ends, these clarified ends are judged against the telos to which they would be means. Dewey seemed to have something like this interplay in mind when he wrote:

Nothing is more extraordinary than the delicacy, promptness and ingenuity with which deliberation is capable of making eliminations and recombinations in projecting the course of a possible activity. To every shade of imagined circumstance there is a vibrating response; and to every complex situation a sensitiveness as to its integrity, a feeling of whether it does justice to all facts or overrides some to the advantage of others.<sup>21</sup>

The growth of the self at its most general level will require the allowance of abduced ends guided by feeling, an ability to imagine the sort of consequences that would follow from such an end, and the capacity for judging these consequences against the initial vague telos that the abduced end would serve.

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<sup>20</sup> *Ibid.*

## II. Fear and Growth

If the growth of the self is the growth of desire, and the result of this growth is a diversification and generalization of the self, both a finer adaptation to one's total environment and a generalization of existential perspective, the question arises as to why the self would ever resist this growth. In this section I will discuss the role played by fear in the human disinclination to growth. I will begin by taking cue from "The Fixation of Belief," building upon some of Peirce's comments in order to make clear what simple psychological principles create a natural disinclination to growth. Although Peirce would come to criticize his theory of inquiry from "The Fixation of Belief" almost as immediately after it was written, the "Fixation" is replete with perceptive psychological insights. In this article Peirce speaks in particular of two "psychological principles," each of which helps to explain significant obstacles to personal growth. After reviewing the role of fear in growth in general, I will suggest how, in particular, fear can be operative in each of the stages of existential growth. In the following section, I will offer three models of personal growth, including the agapastic model in which love encourages the self to grow despite its fears.

The first of two psychological principles that affect our inclination to growth is the fact that belief is a pleasant state. Belief is "a calm and satisfactory state we do not

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<sup>21</sup> John Dewey, *Human Nature and Conduct*, p. 135.

wish to avoid” (5.371). So satisfactory is this state, in fact, that we are willing to sacrifice a more diverse and effective adaptive fit to our environment for the sake of maintaining this happy disposition. In his discussion of the “tenacious” believer, Peirce highlights how the sense of security we gain from a state of belief can outweigh any disadvantages false beliefs may have despite their failure to adequately anticipate the details of future experiences:

[T]he man who adopts this method will not allow that its inconveniences are greater than its advantages. . . . And in many cases it may very well be that the pleasure he derives from his calm faith overbalances any inconveniences resulting from its deceptive character. (5.378)

Peirce’s claim that there are “categories” of believers perhaps obscures the fact that this tendency to tenacity is a human condition. And this is explained, in part at least, by the pleasant state of belief. As we have seen above Peirce further points out that since our beliefs are after all *our* beliefs, each of us is particularly fond not only of the state of belief, but of our own particular beliefs, clinging tenaciously “to believing just what we do believe” (5.373).

Generalized, this is a point about our fondness of our own habits, be they beliefs or desires. The point here is that our ends, by mere virtue of the fact that they are *our* ends, have a certain existential point in their favor. Even habits which cause us pain—be they actual habits of belief that fail to help us negotiate experience or, analogously, habits of the self that fail the more general ends of the self—are *our* habits. There is comfort in the maintenance even of painful habits insofar as they are our painful habits. When we combine this psychological insight with a the theoretical point from above

that habits have a tendency to tendency—that the self must then have a tendency to “closure”—we have a powerful combination of disincentives to personal growth. Habits, even when they are painful, are pleasant insofar as they are habits. And insofar as they are habits, they have a tendency to become more and more fixed.

The second psychological principle of the “Fixation” introduces a theme that will inform much of what follows. In the context of belief, doubt is the necessary condition of the growth of habit. Doubt is habit-failure at the level of belief, and it is this habit-failure which inaugurates new growth. Even the scientist, who seeks out doubt, does so not in order to produce “paper doubts” but in order to anticipate possible real doubts in the future. This habit-failure of belief, Peirce makes clear, is a psychologically undesirable state: Doubt is an anxious state, a “condition of erratic activity” in which one is without one’s habits (5.417). There is, as Peirce notes, a “distinctive dislike of an undecided state of mind.” When this dislike is “exaggerated into a vague dread of doubt, [it] makes men cling spasmodically to the views they already take” (5.377). If doubt is the condition of the growth of belief, this means that some amount of discomfort or anxiety is the condition of the growth of belief. Generalized, this is point about the discomfort of the state of habit-failure, about the state that is the very condition of growth. And since our most general habits are significantly wider than our beliefs, the anxiety and fear that accompanies existential growth will be significantly more pervasive than the anxiety of intellectual doubt. Habit-failure at the existential level, at least at the more general existential levels, is a failure of self. To be without our most general habits, our most general ends by which

we organize our lives, is to be, insofar, without a self. Because of the pain of this state of habit-failure we have a significant disinclination to growth. For some degree of anxiety and discomfort is a condition of growth. My suggestion, drawn by analogy from Peirce and borrowed from the explicit writings of others, is that we avoid growth not only because of the comfortable state of our habits, but, more importantly I think, because of a fear of the pain that growth inevitably involves, because of, in Peirce's words, a "vague dread" of habit-failure. In what follows, we will trace the growth of the self through the three "movements" of growth for one last time, this time looking for the fears that interfere with existential growth specific to each movement.

### ***Fear of Abduction***

A condition of the abduction of belief is doubt, a state of anxiety in which we are without habits, in which we are without our patterns of inference by which we negotiate our way through the world. A condition of the abduction of possible new ends of the self is a suspension of some of our operative ends, a state that essentially leaves the entire self without an end, without purpose, without any sort of fundamental organizing principle. Existential abduction requires habit-failure; it requires that some operative end be suspended. Abduction requires a freedom from habits or desires that have functioned as practical and unquestioned necessities for the self.

What this means is that in order for the self to grow some portion of the self must be *risked*. In order for new ends to emerge some operative ends must be



suspended. To the extent that growth involves the most general and most fundamental ends of the self, growth will require significant existential risk. In order to grow it is necessary to risk one's operative habits for the sake of future possible habits. But since we are our habits, since the self is the very sum of its habits, this is to say that the growth of the self involves the risking of the self. The fear of existential abduction is, in part, the pain of the uncertainty, the anxiety associated with this risk. Without risk there can be no existential abduction, and without existential abduction there can be no growth.

### *Fear of Deduction*

As Peirce notes speaking of intellectual growth, "it is . . . easy to be certain. One only has to be sufficiently vague" (4.237). And so if it is uncertainty that we fear, the avoidance of deduction, of the drawing out of definite consequences of a hypothesis, will serve the purpose of conserving our beliefs. By not drawing out the consequences of our possible ideas, we effectively preclude the possibility of testing them. Without deduction, abductions go untested and so they cannot be proven untrue. Our fear of intellectual doubt, I suspect, may actually cause us to anticipate the failure of a belief in induction and for that reason cause us to avoid clarifying the idea.

By not developing some possible habit of the self we are likewise saved from the possibility of the failure of that habit. This is not a question of the feeling or acknowledging of a possible habit, but the development of that possible habit into a

working habit. The fear of deduction is, in part, the a fear of developing a possible end only to find that this end is not capable of satisfying the more general ends of the self.

Further, recall that possible habits grow into operative habits through deductive executions of an abduced habit. Deductions draw out the consequences of an abduction. Often times this is done through specific series of efficient causation. The process of deduction, in other words, will generally require significant effort. To develop a possible habit into an actual habit, the work of deduction must be undertaken. But since there is no guarantee that the developed abduction will in fact serve the end for which it was created, this means that the work invested into the development of our habits may be in vein.

Deduction is thus a painful, effortful process in which we struggle to develop some possible end into a working end. The reward for all this effort may be failure, and so there is a fear of risk at work in the fear of deduction. We fear risking the pain and effort of the development of our possibilities when we do not know if this effort will be rewarded. The development of our possibilities may require suffering, and we fear risking suffering without a guarantee of reward.

### ***Fear of Induction***

In inquiry, the fear of induction leads to an avoidance of reality. Speaking of the “method of science,” Peirce wrote: “Its fundamental hypothesis, restated in more familiar language, is this: There are Real Things, whose characters are entirely

independent of our opinions about them. The new conception here involved is that of reality” (5.384). The scientific method is the only model of intellectual growth offered in the “Fixation” that involves a confrontation with reality. Because of this it is the only method that actually produces the evolution of the inquirer’s knowledge about reality. Because induction can result in failure, however, other ways of fixing belief will always be psychologically tempting. The fear of the failure of belief persuades us to sacrifice the growth of the belief.

The fear of existential failure likewise results in an avoidance of reality. Since existential induction may show us that a desire we have developed has failed the more general ends of the self, thus forcing the growth of the self, we have reason to fear testing our habit for success. We avoid comparing our habits and desires with our most general ends. We fear the habit-failure that could result if we truly confronted our most general ends and asked if our current habits were successfully serving as means to those ends.

The consequence of this fear of the loss of habit, the partial loss of self, is a dishonesty about ourselves and about reality. We carefully avoid looking at our habits in such a way that would suggest their failure. To the extent that a self feels disconnected from itself or from reality, it is likely because it must refrain from confronting reality in order to maintain a confidence in its habits. The existential equivalent to the dedication to reality in inquiry is an existential honesty, a generalized dedication to reality in our experience. The courage for this honesty, I will suggest below, is a likely result of the acceptance of agape.

Because of various types of pain that we must confront in growth—the pain of uncertainty, the pain of effort and development, the pain of the confrontation with reality—we have significant disinclinations to growth. Our final task will be to show how fear of the pain of growth leads to “degenerate” models of growth and how agape can melt away much of the fear that prevents us from growing.

### **III. Three Models of Personal Growth**

I would like to suggest in this final section how agape is capable of actually relieving us of our fears and encouraging us to growth. Agape, I will suggest, possess a power to bring about our transformation by giving us the courage to feel or envisage ends despite the risks of existential growth.

But even if agape is so capable, this raises the question of whether or not agape would then be a *necessary* condition for growth. Is growth possible without agape? Surely there are many of us who have never experienced the unmerited love of agape at any level beyond the physical, perhaps only in our childhood. Even those of us fortunate enough to feel loved need not accept this love and we need not respond to it with consistency. Whether we lack love, refuse love or don't consistently respond to love, the question becomes, “Can we grow without love?”

Following Peirce to the last, I will offer three models of personal growth. Two of these models are what Peirce referred to as “degenerate” modes of growth. Unlike agapic growth, however, these degenerate modes are incapable of bringing about growth that is in sympathy with the self’s most general ends. This is to say that in degenerate growth the habits of the self are not developing towards the actualization of the self’s felt possibilities. Of course just as Peirce thought that “In the very nature of things, the line of demarcation between the three modes of evolution is not perfectly sharp” (6.306), it is also likely the case that personal growth cannot be neatly packaged into three models. Still, I think, we can make intelligible distinctions between models of growth in which one or another element is, in Peirce’s words, “of principle importance” (6.302). Also, following Peirce, it is important to note that the degenerate models of growth are likely at work in smaller, less general, processes of growth within the larger self (cf. 6.105).

Thus far I have explained personal evolution as if the general end of the self--the final cause of the idea that is the self--operated without resistance from other habits within the self. Our discussion of fear makes it obvious that often times the self is in antagonism with itself, that the self may in fact desire growth at the same time that it fears growth. Otherwise put, the self may desire growth while its operative desires are fixed on some one end. There may be a felt “gap” between the actual self one is and the self one feels one could be.

This suggests that we must distinguish between the actual ends that guide the action of the self and the potential ends that could guide the action of the self. This

suggests that within each self there are always more general ends beyond the end or ends that actually guide our action. These more general ends lie in potential, waiting to be acknowledged in existential abduction, waiting to be acknowledged as real possibilities by the self. Like all ends, our potential ends exercise some constraint on the self. It is up to us to allow these ends to arise in existential abduction. It is up to us to let ourselves feel our most general desires.

The three models of the growing self differ in how they relate to our potential ends. I will refer to the most basic and general desire of the self as its “genuine potentiality.” Our genuine potentiality is who we are. It is the idea that is the self. Our task is to allow ourselves to feel its constraint on all our habits.

### ***Tychastic Evolution of the Self***

Agapastic growth involves the growth of ends in sympathy with more general ends. In the agapastic growth of the self, the self will allow itself to feel its most fundamental ends and will let the abduction of less general ends be guided by the most general ends. Tychastic evolution of the self occurs when the self does not allow itself to be guided by its most general ends.

To allow ourselves to feel more general ends is to allow ourselves to feel some more general desires. But desire, we have seen, is painful. Desire is a lack. This is clearest in the case of the most basic desires. To be in the state of desire for food or sex or companionship places the entire self in tension. That such basic desires do cause pain

when they are in fact really operative in the self is, I take it, obvious. Because of the pain of lack, the self has a motive to deny the reality of these desires when they cannot easily be met.

Less obvious, perhaps, is that we may have more general desires, desires for becoming a certain type of self, that we also have reason to avoid feeling. Nietzsche wrote that “There exists no more repulsive and desolate creature in the world than the man who has evaded his genius and who now looks furtively to left and right, behind him and about him.”<sup>22</sup> His explanation for such a retreat from one’s most general ends is also fear, a fear of the opinion of one’s neighbor.<sup>23</sup> I think, however, that the fear is less that of the other’s opinion than it is of the admission, development and testing of our possible selves. With the admission of general desires comes the pain and anxiety of unfulfilled desire. This pain is actually more profound the more subtle and general this desire is. An awareness of one’s most general ends comes with a commensurate responsibility to those ends. And so the self may simply refuse to feel its desires. The motive for such a disowning of the self is a freedom from desire, a freedom from the pain of growth. To admit a possible end for the self is to put oneself in a state of uncertainty or anxiety regarding whether or not this end could ever be successfully met. And so we avoid the admission of our most general ends. As Branden notes, by avoiding this anxiety or uncertainty we also protect ourselves from learning our potentiality. Branden describes a dialogue between himself and one of his patients in

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<sup>22</sup> Friedrich Nietzsche, *Untimely Meditations*, p. 128.

<sup>23</sup> *Ibid.*, p. 127.

which the patient, with the therapist's assistance, comes to the realization that he is avoiding the allowance of ends:

[Client]: Mother would tell me good things about myself, or somebody would tell me I was brilliant, and even a couple of my teachers told me I was very smart.

[Therapist]: And as things stand now—

C: --I'll never find out

T: I'll never find out—

C: --what I am

T: that makes me feel—

C: --miserable, but also good.

T: It makes me feel miserable because—

C: --it means my life is a failure

T: It makes me feel good because—

C: suppose I couldn't accomplish that much, anyway? Suppose I'm not so special?

I said to him, "If you never really commit yourself to struggling for a career and a real life for yourself, you'll never have to find out just what your potentiality is. . . . So, to protect your self-esteem, to avoid finding out what you can or cannot accomplish, you do nothing, you just drift—and then loathe yourself for your passivity."<sup>24</sup>

The result of the evasion of one's genuine ends is the tychastic evolution of the person.

Tychastic development occurs when the self has no sense of purpose grounded in its felt

ends. The result is, as Branden puts it, a disowning of the self: "When a person

represses certain of his desires, because he cannot tolerate the anxiety of wondering

whether or not he will attain them, an anxiety that makes him feel helpless and

ineffectual, he disowns a part of himself . . . ."<sup>25</sup> When the growth of the self is

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<sup>24</sup> Nathaniel Branden, *The Disowned Self*, p. 80.

<sup>25</sup> *Ibid.*, 71.



unattached to any felt purpose for the self, the growth of the self, insofar as it can be understood as growth, will be tychastic.

We have seen from “Evolutionary Love” that in genuine habit-taking new habits or ends develop in sympathy with the final cause of the self. There will then be a continuity between one’s past ends and one’s future ends and, as they unfold, they should involve a continual growth of ends towards a realization of the self’s most general end, the “genuine potentiality” of the self. In tychastic evolution new habits are not in sympathy with the felt guidance of the self. New ends are adopted without the benefit of the context of the self’s purpose. They therefore have no essential relation to the self or to the self’s most general telos. If they do actually serve to develop some genuine potentiality of the self, this will be coincidence. The result of the adoption of random ends is the “drifting” Branden mentioned above. Tychastic evolution in the person is growth without purpose. And so this type of growth is characterized by a sense of negative freedom, the sense of being completely unconstrained. If our model is correct, this freedom is an illusion. It is bought at the price of a disowning of the self’s most general felt sense of purpose. It is a denial of the gentle constraint of the self on each of its habits.

We have seen that because possible ends in tychastic evolution are spontaneously adopted in a way that is discontinuous with any more general final cause, the tychastic adoption of ends does not lend any directionality to growth. As in Darwinian evolution, the possible habits that arise in tychastic evolution are random. For tychastic growth to take on directionality, some second element, some external

pressure, is therefore necessary. In the simplified version of Darwinian evolution this second element is natural selection, a pressure on organisms in which failed traits are weeded out of the species thus resulting in the evolution of the species. Likewise in the tychastic evolution of the self, directionality will be imparted by an external pressure. The self grows only to the extent that failed habits are abandoned, resulting in a growth, by default, of the whole self. We have here a model of evolution in which progress is the direct result of chance in combination with failure. The tychastic growth of the person occurs as failed habits are selected out of one's behavior.

Since there is no purpose to the tychastic self by which habits could be deemed failures, the "limit" point of failure in tychastic personal evolution will be very undeveloped. This, I suggest, is a certain threshold of pain. There is a point at which the pain of not altering one's habits outweighs the pain of abandoning them, the pain of the anxiety of being without habit. At this point, the self may choose to replace present habits with less painful habits. "Growth" occurs when habits are so painful that the self abandons them. The self, as a habit-system, is so far improved when the painful habit or habits are destroyed. In organic natural selection, growth of the species is the result of the failure of the organisms with the least functional habits to reproduce. In personal evolution, habits are "destroyed" in so far as they are abandoned, in so far as their ends are consciously or unconsciously forgone. Thus, though I have suggested above that fear of pain is commonly what slows our growth, the fear of pain can also cause us to abandon habits, and thus can be an orienting factor in a type of human evolution. It is,

ironically, thus possible to grow, in this truncated sense, *because* of fear rather than *in spite* of fear.

There is a distinction to be made here about the nature of habit-failure in agapastic and tychastic evolution. In agapastic evolution, as we have seen, growth is the result of the development of purposeful habits. Failure here may occur as these new ends are being developed. New habits may arise in response to failed attempts to achieve an end. As we have seen, the possibility of failure is built into agapastic growth. But failure here is failure in light of some new desired end. It is the failure of striving, an active failure. In tychastic evolution, to the contrary, failure is not failure relative to new purpose, but failure absolute. Like the failure to reproduce in Darwinian evolution, the failure of a habit in tychastic evolution is the failure to simply *maintain* itself, not the failure to bring about its end. Thus tychastic growth occurs not because of failure of habit in the context of the striving, but failure of habit to meet the minimal requirement of not being intolerably painful. Tychastic evolution is evolution without risk. It does not require belief or faith in a possible future. It is simply the result of the death of habits that produce consequences that are too painful for us to bear. Because tychastic evolution is purposeless, growth is purely reactive.

The painful habits that are abandoned in tychastic evolution will differ in various selves, as will the threshold at which the habit becomes more painful than the pain of abandoning the habit. Growth here can mean abandoning cigarettes or abandoning a career, abandoning a relationship or abandoning the idea that one is sufficient outside of a relationship. It can, when it involves the abandonment of

conscious beliefs, mean abandoning one's self-image. Likewise, habits become too costly for different reasons at different stages for different people. Different persons will respond to failure at different stages. And, of course, for some the threshold of pain is so high that the habit only dies when the self it possess dies, possibly from the very habit that is causing so much pain. There is no formula for how we each weigh the advantages and disadvantages of our habits. The only formula at work here is that habits are adopted randomly and are not replaced until they become more painful than their abandonment.

Tychastic evolution, despite the fact that it seeks to avoid pain, turns out to be a very painful and inefficient method of growth. Because tychastic growth is purely reactive, because it is simply the habit of choosing the least painful courses of action in the short run, tychastic evolution is continually confronted with pain that could have been avoided. Tychastic evolution is the least efficient model because it has no positive direction. Our potentialities lie dormant as we drift from one end to the next, developing some possibility only so long as it does not cause us inconvenience. Since there is little reason to the ends that we choose, there is little chance that our actual potential will ever be developed. In lieu of faith in potentiality of the self, habits are adopted with no relation to real potentiality, and these habits survive because there is no impetus to growth from within. The avoidance of pain is the only motive for growth and so the self is not willing to choose the immediate pain of growth in return for habits that will be more satisfying in the long run. Beyond the specific encounters with pain that make up the substance of tychastic evolution there is also the very pain of

purposelessness itself. The tychastic self must endure the individual pains its habits cause and the pervasive pain of being a self with no operative telos.

Is there then no hope then for the self that has cut herself off from the felt guidance of the self? I think that it is possible to transcend tychastic evolution, and this is because of the pain of tychastic evolution itself. It is because of the very painful nature of tychastic evolution that the self will occasionally be persuaded to abandon it. We learn, perhaps, that the pain of purposelessness is too great, and we abandon the very habit of tychastic evolution. Perhaps we turn to another model of growth, perhaps we abandon our tychastic habits for another degenerate mode of growth and surrender our selves, for example, to another's vision of our potential. Tychastic evolution in the self can be a lesson in the consequences of fear. Through this illusory freedom we can learn the importance of limiting our freedom and of allowing the self to constrain itself.

Tychastic evolution is the difficult path to understanding the importance of both faith in the felt self and the limitations that come with obedience to the self. Real growth, with the pain it will entail, we learn, is less painful than the vain attempt to avoid pain. The pain of growth by agape is paid in advance. It is pain in the struggle towards the realization of potential. And typically the pain is more than compensated by the actual growth itself once new habits are established. Agapastic growth will require the pain of risk and faith, but this pain pays dividends. The avoidance of pain at all costs simply collects interest.

The importance of noting the possibility of this transition from purposeless growth to purposeful growth is that this means that the pain of tychastic growth may be

enough to cause the self to begin developing agapastically without the benefit of the reception and the acceptance of agape. Pain and the fear of continued pain of tychastic growth can actually be enough to convince the self to grow into agapastic growth.

### *Anancastic Evolution of the Self*

In *The Road Less Traveled* M. Scott Peck writes:

In attempting to avoid the pain of responsibility, millions and even billions daily attempt to escape from freedom . . . Dr. Hilde Bruch, in the preface to her book *Learning Psychotherapy*, states that basically all patients come to psychiatrists with “one common problem: the sense of helplessness, the fear and inner conviction of being unable to ‘cope’ and to change things.” One of the roots of this “sense of impotence” in the majority of patients is some desire to partially or totally escape the pain of freedom, and therefore, some failure, partial or total, to escape responsibility for the problems of their lives.<sup>26</sup>

Anancastic evolution in the self is the result of the self’s flight from freedom.

Whereas in tychastic evolution the self evades its felt potentiality by allowing itself a complete freedom to adopt random ends, in anancastic evolution the self evades its felt potentiality by attaching itself to one particular end, thereby eliminating the possibility of the emergence of new ends. Anancastic evolution makes genuine growth impossible by extinguishing the condition of growth, a freedom from the force of past habits or ends.

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<sup>26</sup> M. Scott Peck, *The Road Less Traveled*, p. 43. "Escape from Freedom" is Peck's chapter title, itself borrowed, Peck notes, from Eric Frohm's study of Nazism

The degenerate growth that occurs here is merely the diversification of some one end. The end that is developed is itself, however, fixed. The self will not risk this end and so no generalization of this end is possible; no growth at a level more general than the fixed end is permitted. This is erotic growth that is not contextualized by agape. Means to the fixed end may develop but the end itself may not develop. As Hausman notes, the “unrelenting pursuit of [a] goal is the mark of a kind of love that is called eros.”<sup>27</sup> But within the fixed end of eros, Hausman notes, there is still some freedom for a truncated growth towards that fixed end: “there is room for departures from a strict logic of events from within the web of necessity. Thus, eros is not bound in every detail . . . . [T]here is freedom internal to the necessity . . . .”<sup>28</sup> Anancastic growth of the person occurs to the extent that habits will develop to better accommodate the specific desire that has taken hold of the self. This end need have no essential relation to the self’s felt potentiality and for this reason it, like tychastic growth, is degenerate growth.

A consequence of Hausman’s point is that because internal anancasm may involve an extraordinary amount of growth in the name of the fixed end, it may seem like genuine growth to both the self and others. The self appears to be developing because habits are indeed being formed as means to the predetermined end. A young child may be disciplined to be extremely studious. She inherits the end of academic excellence from a parent. She works extraordinarily hard developing habits which accommodate this end. If she responds to the discipline with success, the outside

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<sup>27</sup> Carl Hausman, “Philosophy and Tragedy: The Flaw of Eros and the Triumph of Agape,” p. 147.

<sup>28</sup> *Ibid.*, p. 49.

appearance may suggest that this is a developed self. But this growth is relative only to the predetermined end, an end which may or may not be part of the self's felt potentiality. This appearance of maturity will therefore cover over the fact that it is not the *self* in its genuine potentiality that is growing. The result is that it is not uncommon for persons who have developed some one talent, such as academic excellence, athletic excellence, or artistic excellence, to remain undeveloped human beings. Yet this can easily be obscured by the growth that has occurred in the name of the internalized end and by the social recognition that may follow from the development of some one habit. While this may be an efficient way of creating *some* functioning self, it makes the growth of the genuine potentiality of the person extremely unlikely.

If Peirce is correct, anancastic evolution in the self will come in two varieties. In its external variety, anancastic growth will be the result of the application of external force or forces. Growth will simply mean the diversification of habits that serve as means to some end that is imposed from without. The most obvious example of external anancasm would seem to occur when the self either finds itself in or submits itself to an overly disciplined environment in which the self is given no freedom to develop its own ends. Here the fear of growth motivates the self to develop some end that is chosen by that outside source. The pain of the development of the one fixed end is accepted as an alternative to the pain of growth. The tyrannized child that finds herself in an overly disciplined environment or the adult that willingly abdicates his or her freedom will both grow only in the truncated anancastic sense of developing an externally imposed end. As we noted in the first chapter, the erotic love of another can



also function in this coercive way, threatening to punish the object of eros with the withdrawal of eros if the object does not submit to the lovers' vision for the beloved.

The benefit of such a model of growth is that the self has no responsibility to develop his or her potential, and so the pain of fundamental growth—the pain of abduction, deduction and induction at the most general levels of the self—is avoided. There is no need to suffer the anxiety of the risk of the self's most general ends since these ends are set in advance by an external authority. There is no need to suffer the anxiety that accompanies the choice of fundamental ends; there is no possibility of making the wrong choice about one's ends; there is no need, in sum, to take responsibility for one's growth. Many people chose to have their ends determined by outside forces out of fear of honestly dealing with their potentiality and the pain of developing their potentiality.

In its internal variety, evolution will be the result of an "inward necessity principle." Here, it is an internal end that operates as a force and which determines the course of evolution. Peirce suggested that the growth of most human beings resembled this model of growth: "If the evolution of history is of considerable part of the nature of internal anancasm, it resembles the development of individual men" (6.314). This seems accurate. Internal anancasm of the person occurs when the person is subject to some internal fixed end. What often occurs as the result of the external anancasm of childhood is that specific ends demanded by external sources become internalized. When an end becomes internally fixed and the self is responsible to an end and this end only, we have evolution by internal anancasm. Perhaps none of us are able to choose

our ends with perfect deliberateness, and so we find ourselves diversifying habits for the sake of some more general ends which determine our actions in ways we can only dimly sense. To the extent, however, that internal anancasm dominates the self, the self will be unable to grow beyond whatever necessities it has internalized. A slightly less common example of growth by of internal anancasm might be the addict, the person in whom, likewise, one particular end has taken hold of the self.

The temptations to and the failings of internal anancasm as a method of personal evolution are the same as for external anancasm. Internal anancasm allows us to blind ourselves to possibilities which would cause us anxiety. The escape from freedom is an escape from the responsibility and pain of growth. Anancastic evolution is the result of the fear of the pain of growth. In tychastic growth there is no risk. In anancastic growth there is little risk. By choosing not to choose we avoid the pain of responsibility involved in deliberate growth. Our risks regard only whether or not we are capable of securing our one fixed end. Growth by necessity is growth that neither requires nor allows for freedom. It is thus a mode of change in which the self is not responsible for its actions. For this reason, there is an attraction to anancastic growth.

Along with the fear of the pain of growth, in internal anancasm the self is motivated--as in external anancasm--by the fear of another pain. The pain here is the not the fear of external punishment, but internal punishment. We fear the pain of internal censure. Growth here is still growth by fear, as it is in external anancasm, but here the disciplinarian is internalized.

Notice that internal anancasm performs its function of allowing the self to escape the pain of growth whether it manifests itself as a commitment to a chemical substance or a religious/philosophical ideology. Regarding the growth of the self, there is no essential difference between the addict and the accomplished professional insofar as each has evaded himself through attachment to some one end. Recall that the oligarchic soul of Plato's *Republic*, the lover of money, is no less a slave than the tyrannical soul:

. . . he makes the calculating and spirited parts sit by it on the ground on either side and be slaves, letting the one neither calculate about nor consider anything but where more money will come from less; and letting the other admire and honor nothing but wealth and the wealthy, while loving the enjoyment of no other honor than that resulting from the possession of money . . . .<sup>29</sup>

The essential benefit to the self is the same: the self surrenders the freedom that is necessary for growth.

I have suggested that the pain of tychastic evolution is a likely predecessor to either anancastic evolution or even agapastic evolution. The tychastic self may learn that the pain of purposelessness can be somewhat alleviated by absolute commitment to some one purpose. While this does not lead to the growth of the self, it does give the self a sense of purpose and thus alleviates one pervasive cause of the pain of tychastic growth. I am less optimistic that anancastic growth holds much hope for development

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<sup>29</sup> Plato, *The Republic*, 553d.

beyond itself. The anancastic self reaches a point where possibilities beyond some one end are often inconceivable. While there will be growth and development of habits that serve as a means to some end, this end itself is not candidate for generalization. The self that is practically incapable of transcending anancasm has reached the state of “closure” mentioned above. Habits become so hardened that it becomes impossible to feel or even consider the growth of ends.

Is there no hope then for the anancastic self? I would suggest that one way anancastic growth can be disrupted is through “cataclysmic evolution.” Under the heading of external anancasm, of course, falls cataclysmic evolution (6.298).

Cataclysmic evolution is growth that results from sudden changes in the external environment (1.104). Just as scientific evolution may take a great leap because of new observational tools (1.109) or new evidence, it seems that personal evolution can occur for similar reasons. It is common for habits to be broken up as the result of severe environmental changes: the death of a loved one, a near death experience, a national catastrophe. It may be possible that a significant external shock can force the closed self into a suspension of its habits.

### *Agapastic Evolution of the Self*

In the tychastic growth of the person the fear of the pain of growth causes the self to evolve only when the pain of failed habits outweighs the pain of growth. In the anancastic growth of the person, the fear of the pain of growth causes the self to submit

itself to the pursuit of some one fixed end in the avoidance of growth. The agapastic growth of the person is the one model of evolution in which the self chooses to suffer the pain of growth in a deliberate attempt to actualize its potentiality. Growth in the space of agape is the one formula of growth in which growth occurs because of deliberate choice rather than fear.

### *Agape and the Fear of Existential Abduction*

We fear abduction because we fear the vulnerability that abduction requires. The growth of the self, we know, requires a discontinuity with one's habits. It requires that one risk one's habits, one's very self, in order to see and develop new possibilities for the self. For existential abduction to occur, the self's habits must be suspended. We fear this vulnerability. We fear the uncertainty of not understanding (emotionally and intellectually) exactly who we are, the anxiety of being, insofar, selfless.

Agape provides the courage that makes this risk possible. Agape, recall, is an unconditional love. What this unconditionality amounts to in theory is a freedom from necessity. But what this unconditionality amounts to in practice is a practical certainty that the self has value. Agape is not attracted to its object because of merit. This means that agape will not withdraw its love if the self loses its merit, if the self risks itself and fails. The possibility of failure---which would otherwise would cause us significant anxiety---does not mean the possibility of the loss of value of the self. This practical certainty in the self's value allows the self to take risks and suspend its desires

in order to envisage new possible ends. This sense of value makes it possible for the self to be vulnerable, without defenses, and to risk failure. The self inherits a practical certainty that makes the uncertainty of growth existentially possible.

To draw on an example familiar to our experience, consider how agape operates in education. Consider how our students learn and grow most when they feel secure enough to risk thinking or offering a belief. When we create a classroom environment that is tolerant of mistakes, we encourage—literally en-courage—our students to grow through their efforts and their struggles beyond these mistakes. Their risk of failure is the condition of their success. When we create the opposite environment, one in which students feel that they cannot err, they risk nothing and gain nothing. They leave more or less where they came in and, I think, become cynical about the value of a liberal education as such. When students do not feel themselves being transformed in our classes, they naturally assume that the ends and ideals they possess are final and they demand of us the marketable skills that will help them secure these unexamined ends. When we are not concerned for their growth, their integrity, it is we, ironically, that ourselves become a means to the corporate model of education they bring to the classroom.

By virtue of the courage imparted by agape, the self is capable of allowing itself to experience its felt possibilities. The self is therefore capable of feeling and growing into its genuine potential.

*Agape and the Fear of Existential Deduction*

For a possible habit to develop into a working habit, the self must suffer through the effort of existential deduction and thereby draw out the consequences of its end so it can be tested for harmonization with a larger end. Because we fear both the effort this development requires and the possibility of failure once this effort is expended, we fear both the work and risk of existential deduction.

What is required is that the self dedicate itself to the work of developing its possibilities despite the uncertainty of reward. Agape encourages us to suffer through these pains of growth by enabling the self to become disciplined. Peck writes:

The feeling of being valuable—"I am a valuable person"—is essential to mental health and is a cornerstone of self-discipline. It is a direct product of parental love . . . . This feeling of being valuable is the cornerstone of self-discipline because when one considers oneself valuable one will take care of oneself in all ways that are necessary. Self-discipline is self caring.<sup>30</sup>

Because one has received love, one is likely to show love—not to others only, but also to oneself. Agape allows the self to love itself, and to love one's self is to care about one's own growth. In this way agape tends to impart discipline, a willingness to risk effort and pain for the sake of nurturing one's own growth.

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<sup>30</sup> M. Scott Peck, *The Road Less Traveled*, p, 24.

*Agape and the Fear of Existential Induction*

Both Peck and Branden stress the importance of the dedication to reality for psychological health. Peck writes:

We are daily bombarded with new information as to the nature of reality. If we are to incorporate this information, we must continually revise our maps [read habits of belief], and sometimes when enough new information has accumulated, we must make very major revisions. The process of making revisions, particularly major revisions, is painful, sometimes excruciatingly painful. And herein lies the major source of many of the ills of mankind.<sup>31</sup>

Branden similarly writes:

Self-esteem is the psychological result of a sustained policy of *commitment to awareness*, by which is meant: a will to understand the facts of reality, as they relate to one's life, actions and needs; a respect for facts and a refusal to seek escape from facts, including the facts of one's inner experience; a policy of being guided by one's awareness of reality when one acts, so that one does not take actions or pursue goals that require or entail the subversion of consciousness, the restriction or evasion of awareness, the betrayal of knowledge, reason or honest conviction.<sup>32</sup>

It is not, of course, honesty or even reality *per se* that we fear. We fear the pain of growth, the pain and anxiety of abandoning failed habits and allowing new possible habits to emerge. For the habits of the self to be tested, the self must be willing to risk the failure of the habit. We must be willing to test our habits to see if they harmonize with our most general ends. But since habit-failure may result in the suspension of



habit, the loss of habit, we have a strong motivation to avoid habit-failure. If we allow ourselves to feel or think that our current ends are not our best possible ends, then we are accepting the failure of the self and once again introducing the anxiety of the suspension of our ends. Insofar as the growth of the self includes the growth of felt understanding of oneself--the growth of belief about oneself or the growth of belief about one's environment--growth requires confrontation with reality. We therefore have a strong motivation to avoid confronting reality, in particular the reality of what our most general ends are and how we may be evading them. The result of this fear of induction is an existential dishonesty that can only be maintained in a detachment from all reality. The self must numb itself into a lack of alertness, lest it be confronted with the necessity of growth.

But, of course, a self that has received love, a self that has come to love itself, will value its growth and will be willing to risk habits for the sake of more general and diversified habits. Because we are loved, the loss of the self's habits will not result in the loss of the self's value. Because we learn to love ourselves, we come to value whatever is necessary for our own growth. Insofar as we are so dedicated we must become dedicated to reality, dedicated to allowing ourselves to perceive and feel our own failures. Agape gives us the courage and the sense of value necessary for this dedication to reality, this existential analogue of Peircean scientific method.

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<sup>31</sup> *Ibid.*, 72.

<sup>32</sup> Nathaniel Branden, *The Disowned Self*, p. 82. Original emphasis.



**Conclusion:**  
**Growth, Love and American Philosophy**

Peirce claimed that the self is an idea. In this light Peirce's philosophy must surely be understood as a series of signs which point back to the idea of Peirce himself. At the most general level, speaking of the most general telos that was Charles Peirce, he was a surprising simple man. Peirce desired truth. His dedication was unwavering. Despite his continual professional and personal failures, despite his eventual state of desperate poverty, Peirce never stopped creating philosophy. Indeed, some of his most provocative and original work was written during years in which Peirce must have suspected that he was his sole audience. Despite his failures, or perhaps because of them, Peirce was an exceedingly determined and focused human being. The telos of Charles Peirce was the search for truth.

What makes Peirce both so intriguing and frustrating, however, are the tensions and antagonisms present within this most general idea. Peirce sought truth from all quarters. He was fond of calling himself a laboratory trained believer, and yet--much to the chagrin of many of his disciples--he refused to content himself with the narrow epistemology of the laboratory. "Evolutionary Love" and its companion essays are Peirce at his finest. We have Peirce the logician in his careful analysis of the relation of chance to habit, Peirce the scientist in his examination of protoplasm and physical law and Peirce the sentimentalist in his refusal to allow a twenty-year-old biological

hypothesis to go unquestioned while it frustrated our deepest hopes about the nature of the universe. What others have seen as a lack of scientific integrity in Peirce is in fact a testament to his broader philosophical integrity. “Evolutionary Love” is the extraordinary, sometimes bizarre, work of a philosopher who was capable of the thinking in both the laboratory *and* the seminary. Indeed, the irony of “Evolutionary Love” is that for all Peirce’s insistence on his status as a laboratory-trained thinker, the one historical idea he understood best (or misrepresented least) was the idea of the seminarian.

Because Peirce was fundamentally an inquirer, however, his decided emphasis was on the theoretical over the practical. For those of us who look to the American tradition not for theories of semiotic meaning but for theories of human meaning, we are positioned such that we are forced to translate Peirce’s insights about the cosmic back into the vernacular. This has been my purpose in attempting to “reclaim” the Peircean cosmology. And if Peirce has clarified for us the relation of growth to agape even on the human level, our final question as American philosophers must be: “To what end?”

“The key to every man,” Emerson wrote, “is his thought. Sturdy and defying though he look, he has a helm which he obeys, which is the idea after which all his facts are classified.”<sup>1</sup> Emerson, with Peirce, saw that the self could usefully be thought of as an idea, as a most general end which offers a teleological guidance to the self entire.

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<sup>1</sup> Ralph Waldo Emerson, “Circles,” p. 167.

Emerson understood that as these ideas grow so does the self grow. In his more poetic voice, Emerson offered a description and a loose analysis of this process in the essay “Circles”:

The life of a man is a self-evolving circle, which, from a ring imperceptibly small, rushes on all sides outwards to new and larger circles, and that without end. . . . [I]t is the inert effort of each thought, having formed itself into a circular wave of circumstance . . . to heap itself on that ridge and to solidify and hem in the life. But if the soul is quick and strong it bursts over that boundary on all sides and expands another orbit on the great deep, which also runs up into a high wave, with attempt again to stop and to bind.<sup>2</sup>

With Peirce, Emerson saw that habits tend to harden, that ends tend to “solidify.” With Peirce, Emerson saw that this process of growth was in part a generalization of our present ends and desires. With Peirce, finally, Emerson saw that this process could not be forced--that “the total growths and universal moments of the soul . . . are incalculable”<sup>3</sup>-- that the best we can do is to remain dedicated to both the process itself and to the confrontations with reality that facilitate the surprising moments of spontaneity in which we grow. What Emerson, that most practical and accessible of philosophers, did not address in any depth, even in his essay “Love,” however, is the power of agape to bring about this expansion of horizons. In Peirce’s analysis of exactly how agape tends to foster evolution he has made a philosophical contribution of primary importance. Insofar as we take growth to be our end--if we say, for example, with Dewey, that our end is the very process of growth or with Peirce that the *summum*

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<sup>2</sup> *Ibid.*, 176.

<sup>3</sup> *Ibid.*, 174.

*bonum* is the *growth* of concrete reasonableness--then agape must surely be an ethical imperative. If growth as such is the end then any habit that has the power to foster this end of ends must have a privileged ethical status. Peirce's analysis of agape turns out to have a significant practical import.

In fact the peculiarity of agape as an ethical principle, from the perspective of American pragmatism, is that agape is capable of providing us with a practical guidance for action that is neither obviously *dependent upon* nor *incompatible with* an ontological foundation of goodness. Recall James' well-known explanation of pragmatism from "What Pragmatism Means":

The pragmatic method is primarily a method of settling metaphysical disputes that otherwise might be interminable. Is the world one or many?--fated or free?--material or spiritual--here are notions either of which may or may not hold good of the world; and disputes over such notions are unending. The pragmatic method in such cases is to try to interpret each notion by tracing its respective practical consequences. What difference would it practically make to anyone if this notion rather than the other notion were true? If no practical difference whatever can be traced, then the alternatives mean practically the same thing, and all dispute it idle.<sup>4</sup>

While it would likely be an overstatement to claim that there is no practical difference between a universe with an ontological foundation of goodness and one that lacks such a foundation, the notion of agape, I would suggest, is a practical principle that is *prima facie* compatible with both claims. Following James we might say that, given our pressing need for guidance in practical matters, we may bracket questions of the

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<sup>4</sup> William James, "What Pragmatism Means," p. 28.

ontology of goodness if agape is compatible with both an assertion and a denial of an ontological standard of goodness. What makes agape unique as a practical principle is that it is as easily derived from the Western metaphysical-religious tradition as it is from the imperatives of our biological and psychological existence.

Let God exist, we might say with James. Let there be some ontological source for and standard of goodness. Agape seems as likely a candidate as any other ideal for serving as a human articulation of God's will. Indeed, God *is* Agape claimed John the Evangelist, the "ontological gossamer" (6.287). In Christianity we have a rich religious and philosophical tradition in which the existence of God translates into a practical imperative to agapastic love. To acknowledge the reality of God in practice is to show the other the same unmerited love that God has shown the sinner. Agape, divine and human, is the power which brings about the transformation or salvation of the soul. Theological niceties aside we might content ourselves with the Emersonian claim that love is as much as we are likely to understand of the divine will if such a will exists. The practical consequence of the existence of an ontological standard of goodness is as likely as not to be an imperative to agape. Love is our best guess at what the existence of a God might practically mean.

But agape is a practical imperative that is also grounded in our biological and psychological needs. Looking back to the Greek *agapan* we are reminded that agape is more than a religious ideal. It is a human necessity. The human animal does not survive without unmerited care. Agape is a biological imperative. Only slightly less obvious, perhaps, is the fact that agape is also a psychological necessity. If it is not

necessary for mere psychological functioning, it is almost certainly necessary for healthy psychological functioning. The pages of Elizabeth Wurtzel's best-selling *Prozac Nation* are filled with descriptions of her depression, of her suicide attempts and of her various courses of medication. Wurtzel is a master at drawing the reader into a state of exasperation, confusion and exhaustion similar to that which she experienced--in a significantly more intense fashion--throughout most of her childhood and young adulthood. Within this context the reader longs for the occasional moment of clarity, for the simple categorical assertions which haphazardly punctuate the rambling narratives of her frustrations with psychologists, boyfriends, college and medication: "I just wanted," Wurtzel finally writes "two parents who both loved me."<sup>5</sup> Aware that she might "sound like a Hollywood cliché," she remembers admitting to her mother, "All I ever wanted was for you and everybody to love me the way I am."<sup>6</sup> Elsewhere she writes:

I think about my mother and me, and about the way unconditional love has been absent from my life. . . . Some friends don't understand this. They don't understand how desperate I am to have someone say, I love you and support you just the way you are because you are wonderful just the way you are. They don't understand that I can't remember anyone ever saying that to me.<sup>7</sup>

Her point is so simple, so sincere, so human that we are tempted to dismiss it as indulgent or self-pitying. But the moral she draws from her own personal experience,

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<sup>5</sup> Elizabeth Wurtzel, *Prozac Nation*, p. 72.

<sup>6</sup> *Ibid.*, p. 115.

<sup>7</sup> *Ibid.*, p. 225.



others have drawn from a lifetime of clinical experience. We need agape for our psychological well being and for our happiness. Branden, for example, writes that the conditions of psychological well-being include certain “parent-dependent” needs, needs which “include, but are not limited to . . .the need . . . to be respected, loved, treated as a value; to receive interest, understanding and concern.”<sup>8</sup> Peck goes so far as to claim that “mental illness, for the most part, is a consequence of a lack of love in childhood.”<sup>9</sup> Our physical and psychological well-being are dependent upon something like agapastic love, and this is the case whether or not this ethical principle comes with ontological sanction. Agape, whether or not it be a duty, is a practical imperative for our happiness.

Of course, one might claim that recognizing our need for agape is not equivalent to acknowledging an ethical imperative to act agapastically towards others. Here I can only appeal back to Dewey’s claim that growth is our end of ends, that growth is the only moral end. If this is the case, agape is the best chance we have of securing our moral end. Insofar as we do desire the growth of our interpersonal relations--the growth of community, the growth of institutions, the growth of our loved ones-- agape carries with it an ethical imperative. Insofar as we value growth, in so far as we desire to foster growth, agape is our practical ethics. Agape is as once the distillation of a metaphysical tradition and the imperative of an enlightened humanism. Given the importance of growth to the American tradition and the willingness of the Americans to bracket questions of ontology and metaphysics for the sake of some purpose, there is no

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<sup>8</sup> Nathaniel Branden, *The Disowned Self*, p. 46.

<sup>9</sup> See Peck, *The Road Less Traveled*, p. 169-160.

ideal more suited to an American pragmatic ethics than agape. Agape is the pragmatic ethical principle *par excellence*.

A pragmatism of agape need not deny the importance of metaphysics as a human activity. It need not deny the possibility that metaphysics is the most human of activities, a rational and/or sentimental commerce with what we have traditionally referred to as the divine. But it would realize, as Daniel Callahan once suggested, that when philosophy contributes practical guidance it is usually because it does not ask all its questions at the same time. A pragmatism of agape would be an attempt to show, in various contexts--education, medical ethics, general ethics, e.g.--how agape is capable of bringing about the ends that humanity has continually valorized in its philosophical and religious traditions. Of course the “application” this “principle” will not be as simple as the application of a universal rule. Agape is an ethical principle in the sense of being a most important general end, not in the sense of being a universal maxim. Agape is not the first premise of a system. It is a *habitus*, a virtue, and its enactment is necessarily an art. It’s specific guidance cannot be calculated or deduced. But it can, nonetheless, be taught. It can be taught in theory: It can be explained and described. It can be taught by narrative, as it has been in biblical narratives and in contemporary popular literature. It can be taught by example, its lessons present for all to see in those who embody it.

For those of us perhaps overly dedicated to theory a pragmatism of agape might begin with an analysis of the specifics of the relation between agape to growth. Despite the fact that Charles Peirce was not, by his own admission, a practical man--despite the

fact that he would occasionally succumb to the tempting thesis that purified practice involves no theory and purified theory involves no practice--his theoretical work is full of practical insight. It is of course a great irony of American philosophy that the man who first formulated the pragmatic maxim was himself suspicious of the value of philosophy for practice. It would be an equally happy irony if his theoretical discussions of cosmic growth were to reenergize us in our search for practical guidance in our contemporary context of skepticism and disbelief.

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