Talk 2: How Hegel Integrates Science, Ethics, the Arts, Religion, and Philosophy

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Abstract:
This paper outlines how Hegel integrates science, ethics, the arts, religion, and philosophy (which Kant’s dualisms had left largely un-integrated) by showing how they are all necessary parts or aspects of a single self-determining and thus "more intensive" reality. They all seek to "ascend" above one’s initial opinions, appetites, and emotions, to something that’s truer, better, or more beautiful. (In focusing on all of these forms of “ascent,” Hegel like many intervening thinkers is following very much in the footsteps of Plato.) This ascent takes us beyond the ways in which we’re determined by our biological antecedents and our environment, and thus it makes us more self-governing. By making us more self-governing, all these forms of ascent make us more real as ourselves, and in that sense they constitute a higher, “more intensive” reality. So science, ethics, the arts, religion, and philosophy are all aspects of this more intensive reality. And thus if science is indispensable, so are ethics, the
arts, religion, and philosophy (each of them properly understood). To deprive oneself of any of them, on the
grounds of its supposed incompatibility with one of the others, is to render one’s experience incoherent.

In this paper I’m going to outline how Hegel (following Plato and other thinkers influenced by Plato) integrates
science, ethics, the arts, religion, and philosophy by showing how they all contribute to a higher, more intensive
kind of reality.

Because they are all necessary parts or aspects of this single reality, they are essentially involved with each other
and mutually supportive, rather than in conflict. It’s only when we make an “absolute” out of one of them, so that
we are no longer able to appreciate the essential contribution of the others, that they appear to be in conflict.

How can science, ethics, the arts, religion, and philosophy all be necessary aspects of an ultimate “reality”?

They all seek to practice an “ascent” above one’s initial opinions, appetites, and emotions, to something that’s
truer, more beautiful, or better than those initial opinions, appetites, and emotions. By “ascending” in this way,
whether through truth, beauty, or goodness, we make ourselves more able to govern ourselves, rather than being
governed by whatever external forces caused us to have the opinions, appetites, and emotions that we started out
with. Insofar as we govern ourselves, in this way, we become more “real,” as ourselves, than we would otherwise
be. Thus we bring into being a kind of reality which Hegel calls “more intensive” and which it’s reasonable to call
more fully real than what was there previously. For since this new kind of reality is self-governing, it’s real as
itself, and not merely as the product of its circumstances. We can call this more intensive reality “ultimate,”
because it includes the more familiar kinds of reality but goes beyond them in a way that seems to be definitive.
Nothing could be more real than what by governing itself makes itself what it is.

In this way, science, ethics, the arts, religion, and philosophy all help to constitute what seems to deserve the title
of the “ultimate reality.”

Now for some specifics. It’s not difficult to see how science is an aspect of the ultimate reality that I’ve described.
Insofar as science seeks the truth, as such, rather than merely to satisfy our preexisting appetites or confirm our
preexisting opinions, it goes beyond those appetites and opinions and reflects our thinking. So that if we’re
guided by this kind of science, we’re guided not by whatever may have given rise to our appetites and opinions,
but by our thinking, which presumably expresses us, ourselves, more than anything else does. We can let
appetite-satisfactions and opinions go while knowing that we ourselves are still intact. But if we were to let our
process of thinking go, we would become automatons, no longer governing ourselves in a significant way but
simply reacting to the world that created us and impinges on us, and thus no longer existing as “ourselves.” So our
thinking expresses us ourselves, our selfgovernment, more than appetites or opinions, as such, can do; and the
same is true of the sciences, as products of our thinking. In this way the sciences help to constitute something
that’s more fully itself, and more real as itself, than what would otherwise be there.

Next, the arts. Insofar as they take us beyond the satisfaction of bodily appetites or the ego’s needs, the arts put
us in a state that expresses “us” personally more than our bodily appetites and ego are likely to. For the body and
the ego were formed by prior bodies and by experiences that came from outside ourselves. By taking us beyond
the body’s appetites and the ego, the arts enable us to be less dominated by external influences as such. This is
why we find good art not merely pleasing, but (as we say) “inspiring.” By freeing us, to some degree, from
merely external influences, so that we can (as we say) be “creative” and “express ourselves,” the arts enable us to
be more fully ourselves and they thereby contribute to the reality that’s real “as itself,” by not being governed by
what’s other than it.

With regard to religion, you might wonder how it could contribute to our being fully ourselves. Doesn’t it do
the opposite, by directing us to be governed by something, such as a “God,” that’s other than us? This depends,
of course, on what kind of religion one has in mind. But I want to suggest that even in the Abrahamic religions, with
their focus on a God who seems to be separate and set over against us, there is an important sense in which this
God in fact does or can function to make us more fully ourselves.
It’s well known that religions in general urge their followers to subordinate purely self-centered concerns to something that’s higher or more inclusive. The moral teachings of Judaism, Christianity, and Islam certainly do this. While they sometimes promise rewards and punishments after death, their most exalted and most admired teachings celebrate virtue itself as bringing us closest to God. The best-known and most admired saying of Rabia of Basra, the eighth-century Sufi saint, is that she wanted to “burn paradise and douse hell-fire, so that … God’s servants will learn to see him without hope for reward or fear of punishment.”

There is still the issue of the authority that God seems to have in these religions, which sets God over against those who must merely obey. Here, turning to Christianity, I would point out how in the Christian scriptures, Jesus is reported as saying that “the kingdom of God is within you” (Luke 17:21). St Paul is reported as approving the view that “in” God, “we live and move and have our being” (Acts 17:28). And numerous early Christian writers wrote of the possibility of our “becoming God” (theosis), as something that was made possible by God’s “becoming man.” These latter formulations are in fact preserved and repeated in the Roman Catholic Catechism and Mass. Similar formulations can be found in Jewish and Islamic mystical writings and in Advaita Vedanta and Taoism.

None of these formulations encourage the common idea that God is simply a separate being, one that “exists independently of” humans. Nor does such an idea recommend itself if we want God to be infinite; for as Hegel points out, any being that’s separate is ipso facto finite, limited by its relations to the other beings, from which it’s separate. So modern theologians such as Paul Tillich and Karl Rahner seek formulations that preserve God’s transcendence while not making God a “separate being.” Hegel does the same thing.

The biggest obstacle to understanding Hegel’s relation to religion is the widespread notion that if Hegel is indeed serious about God, his “God” is “immanent” rather than “transcendent,” and this sets him apart from what people take to be “orthodox” religious thinking. The writers who describe Hegel in this way generally don’t take the time to define “immanent” or “transcendent,” but it’s likely that they think that a “transcendent” God would be a being that’s separate from the world, as Hegel’s God clearly is not. But as I’ve just pointed out, (a) Hegel has a good reason to avoid thinking of God as a separate being from the world (namely, that a separate being is limited by what it’s separate from, and is thus not infinite), and (b) the Christian and other theistic traditions are by no means unanimous in thinking of God as a separate being from the world. For (to cite the Christian doctrines again) if God were a separate being, we could hardly “become God,” and it’s difficult to imagine how God’s “kingdom” could be “within us.”

Nor is it clear that a God who is not a separate being is therefore “immanent.” “Transcendence” could be the difference, which is absolutely central for Hegel, between the finite and the (truly) infinite and fully real. The infinite “transcends” the finite in that it’s real as itself and not just as the product of other things. Plato and Hegel both evidently intend to conceive of a reality that’s “transcendent” in something like this sense, without being a “separate” or “independently existing” being or beings.

How can B be more real than A without being a separate being from A? B can be more real if it is A’s going beyond its finitude, into the infinite. A can go beyond its finitude through rational self-government or thought, such as I described earlier, in which A is guided by reason rather than by whatever external forces caused it to have the opinions and appetites that it started out with. If anything expresses A itself, rather than expressing externally induced opinions or appetites, it’s A’s thinking. When it’s guided by itself in this way, A as B is real as itself, and in that sense it’s more real than it was merely as the externally-guided, unthinking A. But since B is A’s going beyond its finitude, in this way, B is not a separate being from A.

Presenting God in this way, as the self-surpassing (becoming more real) of finite things rather than as a being that’s separate from finite things, is Hegel’s way of interpreting (among others) the teachings that “the kingdom of God is within you” and that in God, “we live and move and have our being.” The kingdom of God is within us in the sense that we’re capable of rational self-government, and we have our being in this God in the sense that it’s only through our selfgovernment “in” this God that we achieve full reality, full being, as ourselves.
Through this interpretation, Hegel identifies a core of truth in religion which lends itself to integration with science, ethics, the arts, and philosophy, because it takes religion to be promoting the surpassing of one’s everyday finite self, rather than promoting submission to something that’s separate from oneself. This core of truth no doubt contrasts pretty sharply with much conventional religious talk, but no advocate of religion is likely to deny that religion encourages its followers to surpass their everyday ways of thinking and functioning. Jesus (in Luke), St. Paul, Rabia, and Hegel are simply defining with increasing precision what would be the result of our doing that. Similarly, Plato’s account of rational “ascent” in his discussions in the Republic of the Sun, the Line, and the Cave made it clear how beings like us can in fact surpass their everyday ways of thinking and functioning. This is why Jewish, Christian, and Muslim thinkers who want to go beyond the anthropomorphic mythology of their religious traditions have found the writings of Plato and his followers extremely helpful.

Of course, people who conceive of religion as addressing a more or less anthropomorphic “being” that’s separate from us ignore or reject what Plato, the writer of Luke, and the others are offering. But Plato, the writer of Luke, and the others aren’t seeking to cater to conventional ways of thinking, but rather to identify a core of truth that’s expressed, albeit often in misleading ways, in historical religions.

As for the common objection that religious believers will be left cold by a “philosopher’s God” such as one finds in Platonism and in Hegel, several points need to be made. First of all, this kind of God is characterized not only by the rational self-government or freedom that is manifest in rising above pre-given appetites, opinions, and emotions, but also by an important kind of love. The reason for this love is made most explicit by Hegel, in a variation on his critique of the supposed “infinity” that turns out to be rendered finite by being opposed to finite beings. Hegel points out that being separate from others is a way of being related to those others, so that being guided by one’s separateness from others is a way of being guided by those others as others and, to that extent, not being guided by oneself. So being guided by one’s separateness from others detracts from one’s self-government.

But “self-centered” people and gods are, precisely, guided by their separateness from others—they are concerned about themselves, and “not” (as they will tell you) concerned about those “others”—and to that extent they are guided by (their relation to) those others, and they fail to be self-governed. So people and gods who are fully self-governed will not be self-centered. Rather, they will be, in effect, loving: they will treat others the same way they treat themselves. In this way, freedom as self-government translates into an important kind of love. Of course this also makes it clear how being truly oneself entails ethics, in which we are expected (broadly) to treat others as we treat ourselves.

Secondly, since the ultimate reality, which is real “as itself,” is real in a way that everyday finite realities are not, one could see it as the core of truth in the idea of God’s “creating” the world. By its presence in and influence on the world, the ultimate reality gives the world all of the “full” reality, reality “as itself,” that the world possesses. One could see this fact as underlying the notion, less precisely expressed, of God’s “creating” (giving reality to) the world.

Third, our adherence to the ultimate reality that’s composed of freedom and love, despite the attractions of self-centered appetites, opinions, and so forth, is equivalent to what traditional religion calls “faith.” Turning away from those appetites and opinions toward freedom and love is the equivalent of what’s traditionally called “conversion.” And the aid that we receive, in this faith and conversion, from the freedom and love that are around us and hidden (as potential) within us, is equivalent to what’s traditionally referred to as “grace” and “salvation.”

In all of these ways, our relationship to this “philosophers’ God” reproduces relationships and experiences that traditional religion describes. It simply presents them in a more analytical vocabulary. And thus I think it’s reasonable to suggest that believers who are able to grasp what Plato and Hegel are describing will find it inspiring in much the same way that they find their traditional religious stories and concepts inspiring. For what Plato and Hegel describe has all of the essential features that we find in those traditional stories and concepts.

Next, it will be useful to describe in a bit more detail how Hegel unfolds the analysis that I have outlined.
Once the modern sciences were under way, thinkers including Spinoza, Leibniz, and Immanuel Kant tried in various ways to clarify the relationship between “science and the scientist”: between the “objects” with which the sciences are concerned, and the “subjects” that pursue knowledge of those objects. Kant, in particular, contrasted the sciences’ “theoretical knowledge” of objects with the ethical and religious “practical faith” by which he thought the actions of rational subjects must be guided. There was no way, Kant thought, to have knowledge of how one should act; one could only have practical faith. But if one’s ideal is knowledge, then a “faith” that’s contrasted with knowledge is bound to seem like a poor substitute for it. So Kant doesn’t seem to succeed in integrating science with ethics and religion.

One alternative, which is often adopted, would be to exalt some kind of “faith” over knowledge. As an admirer of science, Kant wasn’t tempted to do this, so he remained stuck with the problem of how to relate the two.

A third approach, which goes beyond Kant’s uncomfortable dualism and beyond the exaltation of faith, was proposed by Hegel, who was returning to something like what seems to have been Plato’s original solution to the problem. Hegel explains how knowledge and faith, and object and subject each involve the other. Rather than being belief in a separate and very powerful being, “faith,” in Hegel’s view, is one’s commitment to the pursuit of knowledge (and through knowledge, of being oneself, and being real as oneself), as opposed to mere opinion, appetite-satisfaction, emotion, and failure to be oneself. The “subject” that exhibits this commitment is far from being merely “subjective” since, being real as itself, it has a more complete “reality” than mere “objects,” as such, possess. Thus “faith” in this sense generates full reality, and gives access to it as well.

Hegel elaborates this view systematically in his Science of Logic (1812) and his Encyclopedia of the Philosophical Sciences (1817). Here he investigates the central issue of what it is to be oneself, and to be real as oneself. To begin with, he presents “becoming,” or coming-into-being and perishing, as entailing a “something” that comes into being or perishes, and which thus is determinate in some way (has a definite quality). The question then is, is the something determinate in itself (an sich) or through its relations to others (Sein-für-anderes)?

We might suppose that the something could be determinate in itself by being separate from others, as “finite” things are. But as I suggested a moment ago, this separation still connects it to the others, through the boundary that separates them from each other and that they have in common. So separation and finitude don’t give us something that’s determinate entirely in itself.

The infinite, on the other hand, which involves no boundaries, promises to be determinate entirely in itself. As I mentioned in connection with the common conception of God as a separate being from us, it’s important not to conceive of the “infinite” as another “being,” separate from finite beings and thus, in fact, limited by its relation to them and not infinite. Hegel proposes that in order to avoid this outcome and come up with a true infinity, we must conceive of the infinite as the finite’s own going beyond its finitude.8 Then there is no border between the two, and we have before us what Hegel at one point calls “the fundamental principle of philosophy.”9 He calls it that because in it we finally have something that is what it is in itself, rather than through its relations to others, but which at the same time allows for the apparent multiplicity of finite beings.

How can the finite “go beyond its finitude”? Again as I suggested a moment ago, the finite can do this through something like rational self-government. We are sometimes able to be more self-determining, and thus to be what we are more “in ourselves,” by being governed by our own thinking rather than by appetites or opinions that originated outside us. Hegel here is drawing on Kant’s notion of rational autonomy, in which the autonomous moral agent is governed by its own rational nature rather than by inclinations that probably originated outside it. A finite something that goes beyond its finitude, Hegel suggests, is like a finite human being that goes beyond its initial appetites and opinions.10 There is something within the something which guides it, and through which it’s no longer “finite,” no longer limited and determined by what’s around it.

The first signal that such an inner guidance is possible is what Hegel calls (paraphrasing Kant) “the ought” (das Sollen). Kant had made it clear that our inner guidance takes us beyond the realm of mere “fact,” to a “morality” that his readers might be inclined to call a realm of “value.” Likewise Hegel’s “infinite” is not a “fact.” Like the initial notion of something’s being what it is “in itself” and not just through its relations to others, the infinite or
the Ought is an aspiration. But it’s not “only” an aspiration, since it’s only through this aspiration that anything, including the universe, can be what it is entirely in itself, and not by reference to anything outside it. So that “value” and full reality are not (as we commonly suppose) separate domains, but are intimately entwined.

In this way the Ought is the equivalent, in Hegel’s presentation, of the Good, which Plato placed at the summit of reality. It’s only through the aspirations that are associated with the Good or the Ought that the soul, in Plato, or anything at all, in Hegel, can be what it is entirely in itself. Just as Plato’s Good had enabled the soul to be unified and to function as “itself,” the Ought enables Hegel’s something to be self-determined and “itself.” In this way, value plays an indispensable role in constituting what’s fully real, in the sense of being real as itself. Here Hegel follows Plato and Aristotle in identifying purposes, and value in general, as an essential aspect of reality, rather than a separate domain as they are in David Hume or in Kant.

So where Hegel differs from Kant is that by showing how the finite fails to be what it is in itself, Hegel shows that only the (value-based) infinite is fully real, in the sense of being real as itself. Knowing this, through Hegel’s exposition, and knowing through our experience the freedom that constitutes the infinite full reality, we know the infinite, our freedom, and the highest reality, rather than (as in Kant’s account) merely having “practical faith” in them. This knowledge of the finite’s relation to the infinite creates a path from the finite to the infinite, an intelligible process of “ascent,” in contrast to the unbridgeable duality between theoretical knowledge and practical faith, which Kant had left us with.

We see this ascent from finite to infinite again later in Hegel’s system as an ascent from Nature to Spirit. As the true infinity is the self-surpassing of the finite, so Spirit is the self-surpassing of Nature. And in each case, what propels this surpassing is our effort to be fully ourselves, and in that sense fully “real.” So again we have an intelligible process of ascent, this time from Nature to Spirit.

In his “philosophy of Nature,” Hegel divides Nature into “mechanics,” “physics,” and “organics.” “Organics,” of course, has to do with life; this is what we call “biology.” “Mechanics” has to do with the simple pushing and pulling of space, time, and matter. “Physics,” the intervening domain between the merely mechanical and the living, has to do with the organization of matter into the four elements and the planet that’s composed of them, which unfolds as light, electricity, and chemical processes. What Hegel traces through this whole increasing complexity is Nature’s increasing ability to organize itself into processes that have a “center” or a “self.” The earth, life upon it, living species, and the life and death of individual organisms exhibit increasingly intense versions of this “self-ness.” In all of this we can see the process of the finite’s going beyond itself through increasing degrees of self-determination and thus of “infinity.”

Hegel’s philosophy of Nature is controversial not merely because of its apparently antiquated theory of “elements” and so forth, but more importantly precisely because of the way it focuses on “self-ness.” “Self-ness” is not an everyday concern of modern physics, chemistry, biology, or even neuroscience. On the contrary, scientists often seem to regard it as a mere by-product of processes that they seek to understand without reference to any “self.”

Hegel is saying, however, that such an agenda ignores the scientist’s own fundamental experience of seeking “selfness” in herself, through the cognitive “ascent” that seeks to replace initial opinions and appetites with truth. Hegel is saying that neither space, time, matter, nor anything else can be more fundamental or better known than this essential activity of “ascent” in which the scientist, like every human being, is constantly engaged. So it’s legitimate to examine space, time, matter, geology, chemistry, living things, brains, etc. from the perspective of this issue of “self-ness,” self-organization, and self-determination.

Indeed, it’s more legitimate to examine them from this perspective than from any other. For self-ness (etc.) are by their very nature the ultimate reality, in reference to which every other candidate “reality” must be judged and understood. They are what is what it is by virtue of itself, rather than by virtue merely of its relations to other things; so that if we seek to understand reality as such, and not only in its myriad “manifestations,” they are what we must examine first. Since they are what we ourselves are, and what the entire activity of investigation that we call “science” is, we know them through our mere awareness of our own activity, and thus they’re not only more
fully real but also better known by us than anything else. To bracket what we are and what we know best, and try
to investigate only what we aren’t and what we know less well, is to consign ourselves to less knowledge and to
ignorance of that than which we can never know anything more real or more fundamental.

So Hegel presents “Spirit” as the reality that focuses most fully upon itself, inasmuch as Spirit asks (in line with the
famous injunction of the Delphic oracle to “know thyself”) what it, “Spirit,” really is and thus how it can
successfully be what it really is.

Within “Spirit,” Hegel unfolds first the familiar “subjective Spirit” that’s composed of our theoretical and practical
thinking. This would include the practice of science, as well as other goal-directed activities. Then Hegel
examines an “objective Spirit” that’s composed of property, morality, the family, the state, and history. In
addition to our “inner” functioning, Hegel calls all of these “external” institutions “Spirit,” as well, because they
are ways in which our external, social world enables us to be free, self-determining, in our dealings with one
another. Enabling us to find something like ourselves in the external world, they prevent that world from being a
mere obstacle to our self-determination.

But then a question arises: which of these two kinds of freedom is primary—the internal one that’s composed of
our theoretical and practical thinking, or the external one that’s composed of property, morality, the family, and
the state?

Hegel’s answer is that neither of them adequately embodies freedom, since being limited by each other they are
both finite. Nor can they simply be added to each other, since the sum of two finite things is still finite. Rather,
we need a new, more inclusive kind of reality, which will go beyond both inner and outer freedom or Spirit,
while preserving what’s free and fully real in both of them. Hegel calls this more inclusive reality “absolute
Spirit” (where “absolute” means “freed”). We know this reality as the arts, religion, and philosophy. They preserve
what’s fully free and thus fully self-determining and fully real in subjective and in objective Spirit, and they omit
the rest. So Hegel describes them as a “reconciliation.” In fact he describes them, for reasons that I’ll explain, as
“the Spirit’s elevation to God.”

To begin with art, it’s fully present in the “outer” world of the senses, but it also goes beyond that world by
giving it the additional dimension that we call “aesthetic.” In this additional dimension, we don’t experience
objective time, space, and finite concerns in the way that we do in the “practical,” subjective/objective world.
Instead we’re held, entranced, by the aura of the artwork and what it does to us.

It’s tempting to describe aesthetic experience as “merely subjective,” merely “in the eye of the beholder.” But
insofar as we engage seriously with the arts, we know that this can’t be correct. We can often reach agreement
with other people about whether the art that we make or experience together is relatively shallow and
contingent, or deeper and more compelling. That’s the sense in which the arts, while being independent objects
in the world, are also, as it were, “thoughtful.” We can evaluate them in a way that resembles the way we
evaluate thoughts. How “compelling” are they, for those who understand them? Because of this dimension of
“thoughtfulness,” art has a more intensive presence than what’s merely objective and lacks anything like thought.

And this is what gives the arts the magnetism that they have for us. They give us a glimpse of a more intensive
“reality,” to which we’re attracted because we feel that we ourselves are enhanced or intensified, made ecstatic,
by participating in it. Indeed, looking back at what’s most free and most real in the accomplishments of subjective
and objective Spirit, and of Nature before them, we can see all of this as, in an important sense, “art.” What’s
fully “itself” and thus most real, including us, is “art” (or whatever art in its turn will turn out to be), because in it
the work, its creator, and its appreciators (as it were) “create themselves.”

Since the arts enable us to have this experience, it’s no wonder that many of us make the arts into something
rather like a religion for ourselves, in which we engage in something that’s not very different from worship. But
religion in the normal sense of the word goes one step further than this. We can see it as an effort to consolidate
or “totalize” the magnetism that we experience in the arts. Because of their immersion in sense experience, works
of art are after all
disparate, there are boundaries between them, and in that respect they fail to achieve the full freedom, the infinity, that we’re searching for. Archetypal religious figures, on the other hand, like Jehovah, Osiris, Orpheus, the Buddha, and Jesus overcome this disparateness and finitude by “representing,” in various ways, the unity or infinity of everything. The “art religion” (as Hegel calls it) of the Homeric gods is gradually displaced by the more intense, “totalizing” religions of Orphism and its successors, because we are searching for the complete self-determination or freedom that the latter represent for us.

But because the world offers us many of these “unifying” figures and associated totalizing religions, it’s unclear whether any of them can really unify our world. And beyond that problem there is the even more challenging problem of the division between these figures and ourselves. This ultimately prevents any of these figures from giving us full freedom or infinity. As Buddhists have quipped, “If you meet the Buddha on the road, kill him.” The Buddha may inspire you to find infinity in yourself, but if you regard him as a figure that’s separate from yourself, he’s also an obstacle to your finding infinity. Likewise for Jesus and all the other “gods” insofar as they are assumed to be beings separate from ourselves.

What Hegel calls “philosophy” supersedes this final disunity and finitude by understanding the entire process that we see in the arts and religion, including the divisions between different gods and between the gods and ourselves, as part of the single process of the finite’s surpassing of itself in true infinity. Sense-experience (in art) and representation (in religion) set us against what we experience or what’s represented to us. So although we came to art and religion for infinity, what we experience in them is still, in important respects, finite. Philosophy, on the other hand, understands us and artworks and gods as aspects of the self-comprehending process that is the self-surpassing of everything finite, including us, the artworks, and the gods.

Within this process, everything is integrated with everything. This is the ultimate accomplishment of rational love. Finite, infinite, Nature, Spirit, you, me, subjectivity, objectivity, value, science, family, state, artworks, gods—nothing is rejected, everything is integrated and subsumed, as Spirit “raises itself to” or surpasses itself as that which alone is completely infinite and thus wholly “itself.”

The traditional term for what is completely infinite and wholly itself is, of course, “God.” Though now it’s clear, as I’ve suggested, that while it’s higher, this God can’t be separate from ourselves. Rather, as we seek to be wholly ourselves by participating in the process that Hegel describes, we go beyond our finite bodies, our egos, all separateness from each other and from everything else, and (as in the Roman Catholic Catechism, which is quoting Saint Athanasius) we “become God.”

As in Plato, this ascent is a matter of becoming (wholly) oneself, not of becoming something different. But what one discovers about “oneself,” in the process, and what one discovers about “God,” is certainly not what common sense or conventional science expected. One’s true self, it turns out, is the transcendent God.

It’s not surprising that many writers in the generation after Hegel weren’t clear about what he had been driving at with this rather awe-inspiring conception. Not recognizing the role of love in Hegel’s ascent, Ludwig Feuerbach criticized it as merely “intellectual,” and held up a counter-ideal of non-intellectual “love” which he hoped to find in the senses and in matter. Karl Marx, focusing on the familiar misuses of religion, suspected that Hegel and religious traditions had conceived of “Spirit” as “higher” in order to sanctify the power of the ruling classes. Soren Kierkegaard caricatured Hegel’s “true infinity” as a stick with which Hegel beat his opponents, and his concern for “system” as a psychological compulsion rather than the simple effort of thought to be as coherent as possible. Kierkegaard and others perceived the subsuming of everything by Spirit as a sort of gobbling up by a Moloch. And on the other hand there was Heinrich Heine’s often-quoted recollection, “I was young and proud, and it gratified my self-esteem to learn from Hegel that, contrary to what my grandmother thought, it wasn’t the Lord in heaven, but I myself here on earth who was God.” One could be the Moloch oneself!

This barrage of misunderstanding all missed the point of Hegel’s ascent, which is his account of how one can be truly oneself only by being self-determining, therefore neither separate from anything nor gobbling it up, and
since not separate, certainly not “proud.” Likewise it all ignored the question of what Athanasius and other classical writers might have meant by their notion of “becoming God.”

To a large extent these reactions against Hegel recapitulated reactions that had originally appeared in response to Plato. Epicurus and Lucretius in the ancient world and Thomas Hobbes in the 17th century responded to Plato’s apparent rejection of the physical world by rejecting all of Plato, including the notion of “rising above” the mechanical functioning of bodies so as to achieve inner freedom. Friedrich Nietzsche, in the 19th century, added the psychological hypothesis that when Plato and Christians speak of something “higher” they are actually seeking a phantom compensation or revenge for their suffering in this world. These critics all fail to see how they themselves, insofar as they seek truth, are engaging in the ascent that Plato and Hegel describe, and how that ascent goes beyond all issues of finite self-interest, including any compensation or revenge.

The tradition of rejecting both Platonism and its Hegelian version continues into our own time. If we think of influential recent doctrines like existentialism, pragmatism, logical positivism, materialism, naturalism, and deconstruction, none of them acknowledges rational freedom as a means by which one can be self-determining, real as oneself, and thus “transcendent.” Accordingly, few thinkers who are influenced by these doctrines appreciate how the common core of science, ethics, art, religion, and philosophy is this rational transcendence.

Despite repeated efforts, the Plato/Hegel view has not been well expounded since Hegel’s time. But there are reasons to think that the present situation in philosophy may make possible a new appreciation of what Plato and Hegel accomplished. In recent decades writers such as Charles Taylor, Gary Watson, Susan Wolf, John Martin Fischer, and Alfred Mele have developed conceptions of human rational self-government that resemble Plato’s in their general approach. Ethics and the arts are getting respectful attention; not everyone regards religion as inherently and in all respects irrational; and commentators on science are doing their best to clarify the nature and the limits of science’s understanding of reality. Plato and Hegel dealt with all of these issues in a remarkably integrated and consequently powerful way. So when a better understanding of their response feeds into current discussions, a major illumination could occur.

When we appreciate Plato’s and Hegel’s view we see that science, ethics, the arts, religion, and philosophy are all aspects of the same “ascent,” the same inner freedom. And thus if science is indispensable, so are ethics, the arts, religion, and philosophy (each of them properly understood). To deprive oneself of any of them, on the grounds of its supposed incompatibility with one of the others, is to render one’s experience incoherent.

References:
4 For example, “The Word of God became man, that thou mayest learn from man how man can become God” (Clement of Alexandria, Exhortation to the Heathen, ch. 1, par. 871). For other examples see the Wikipedia article, “Divinization [Christian],” citing among many other sources the Catechism of the Catholic Church; and for commentary see Michael J. Christensen and Jeffery A. Wittung, eds., Partakers of the Divine Nature (2007). See also St. Augustine’s famous saying, “You [that is, God] were more inward [to me] than my most inward part” (Confessions, III.vi [11]).
5 This is Hegel’s critique of the “spurious infinity” (schlechte Unendlichkeit) which is conceived of as separate from the finite.


7 Plato undermines the idea that God is an “independently existing being” when he makes it clear in the Timaeus that the “craftsman” who created the world had no choice but to create it, because he was “without jealousy” (29e). That is, God’s nature requires God to create a world; so we can’t coherently conceive of a God without a world; so the two don’t “exist independently” of each other in the usual sense. Plato’s conception of phenomena “participating in” transcendent Forms likewise suggests a closer relationship than the two “existing independently” of each other. Plato and Hegel both make it clear that it doesn’t follow from X’s not being a separate being from Y, that X is identical to Y. It may instead be the case that X “participates in” Y (Plato) or that Y is the “self-superpassing” of X (Hegel: see the next note on this).

8 “The finite is not sublated by the infinite as by a power existing outside it; on the contrary, its infinity consists in sublating its own self” (“Das Endliche wird nicht vom Unendlichen als einer außer ihm vorhandenen Macht aufgehoben, sondern es ist seine Unendlichkeit, sich selbst aufzuheben”) (Hegel’s Science of Logic, trans. A.V. Miller, p. 146; WL Suhrkamp 5:160; GW 21:134).

9 Encyclopaedia Logic §95R.

10 “At the name of the infinite, the heart and the mind or spirit [the Geist and the Geist] light up, for in the infinite the mind or spirit is not merely abstractly present to itself, but rises to its own self, to the light of its thinking, of its universality, of its freedom” (Science of Logic, trans. Miller, p. 138; GW 21:125).

11 Plato explains how the Good enables the soul to be unified and to function as “itself” in Republic book iv (on reason in the soul) and books vi-vii (on reason and the Good). Hegel discusses the “Ought” in Science of Logic …, GW 21:118-123.

Commentators often stress Hegel’s criticisms of Kant’s and Fichte’s misleading conception of the “ought” to such an extent that they neglect the “ought’s” key role, for Hegel, in indicating how the finite can in fact go beyond itself as the infinite. The alternation, in the rest of the Logic and the Encyclopedia, of ontological topics with practical ones makes it clear that the ontological implications that Hegel associates with the “ought” introduce us to a fundamental principle of his system.

12 This is a way of stating Plato’s objection to the arts, in the Republic, that they are “images of images,” and so forth. But it’s clear from Plato’s own manifestly artistic efforts (which he himself occasionally identifies as such) that while philosophy surpasses the arts in principle, it doesn’t thereby render them dispensable. Hegel formalizes this state of affairs by presenting the arts as aspects of “absolute Spirit,” ultimately subsumed but not abolished by philosophy, in accordance with his principles of “sublation” (Aufhebung) and true infinity.

13 Some critics have perceived this subsuming of everything by Spirit as a sort of gobbling up by a Moloch. They don’t appreciate the way in which the process that Hegel describes achieves the self-governing freedom of each and all of us.

14 It’s often suggested that Feuerbach’s “anthropotheism” restates what was really going on in Hegel’s philosophical theology. This, however, is a mistake, because Feuerbach didn’t reproduce the vertical dimension of (Plato’s and) Hegel’s thinking, which corresponds to religion’s “transcendence.” This is why Feuerbach’s various proposals have not inspired or attracted much of a following.

15 In his The World as Will and Representation (1818), Arthur Schopenhauer laid out a duality of “will,” on the one hand, and a blissful liberation from “will,” on the other. But with no focus on value or becoming fully oneself, there was no apparent path that could lead from “will” to the liberation that Schopenhauer described. Later, Friedrich Nietzsche, Martin Heidegger, and Jean-Paul Sartre wrote about becoming oneself, authenticity, and freedom, but none of them noted how thinking about value can be crucial in this connection, by raising one above automatic responses to one’s heritage or environment. Francis Herbert Bradley, in his Appearance and Reality (1893), gave a version of Hegel that likewise neglected the role of value in becoming fully oneself and thus provided no path that an individual could travel from “appearance” to mystical “reality.” Like Schopenhauer and Bradley, Ludwig Wittgenstein’s apparently positive allusions to “the mystical” in his Tractatus Logico-Philosophicus (1921) didn’t connect it to our everyday experience of seeking selfhood through reason and thus they left obscure the role of this “mystical” in our lives. Alfred North Whitehead in the 1920s and 1930s, John Niemeyer Findlay and Willfrid Sellars in the middle of the century, and John McDowell’s Mind and World in 1992 likewise didn’t clarify the role of value and the self in (full) reality, and thus weren’t able to fully overcome scientism’s notion of “reality” as simply what’s “objective.” In her Metaphysics as a Guide to Morals (also 1992), Iris Murdoch placed Plato...
at the center of her story but like the others developed nothing like Plato’s or Hegel’s conception of rational transcendence as the experience of becoming fully oneself. So rational transcendence has not been effectively presented either on the Continent or in the Anglophone world since Hegel’s time.

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**Talk 3: Role of Bacterial Vesicles in Social Life of Bacteria**

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**Introduction**

Bacteria are unicellular organisms. One bacterial cell represents one individual that is not dependent upon other cells for survival. However, accumulating evidences during the past few decades indicate that bacteria live as a community in natural environments (Shapiro 1987), implying a paradigm shift from the age-old concept of bacteria as a unicellular organism. Release of outer membrane vesicles (OMVs) by bacteria is one of the manifestations of their behaviour as the member of a community (Jagannadham and Chattopadhyay 2015).

**Historical Background in Brief**

Shedding of some lypoglycopeptide from a lysine-requiring mutant of the colon bacterium *Escherichia coli* was observed by two scientists working at the Twyford Laboratories (London) in 1965. Following this report, two Indian scientists viz. S.N. Chatterjee and J. Das while looking into the mode of toxin secretion in *Vibrio cholerae* (the causative organism of cholera), at the School of Tropical Medicine (Kolkata), noticed that portions of the cell-wall of the organisms were bulging, leading to the formation of “blebs”. They further showed that the bleb formation was occurring in the logarithmic phase of growth of the organism and it was not caused by lysis of the cell or abnormal separation of the cell wall from the underlying plasma membrane. Their studies provided a major stride in the understanding on the vesicle formation in bacteria. Subsequently, the bleb formation was observed in many other organisms. In the present state of knowledge it is known that all gram-negative bacteria form vesicles and release them in the outer environment in all phases of growth. No variant of any gram-negative bacterium lacking the capacity of releasing vesicles has been detected so far.

**Outer Membrane Vesicles**

Outer Membrane Vesicles (OMVs) are bag-like structures (20-300 nm) released predominantly by gram-negative bacteria in the outer environment. They consist of lipids, proteins and lipoploysaccharides, derived from the outer membrane and periplasm. They help the producer cells in communication with other cells, acquisition of nutrients, pathogenesis and self-defence. Production of vesicles is a universal feature observed in all gram-negative bacteria occurring as isolated cells, in biofilms and also inside the mammalian hosts (Schwechheimer and Kuehn 2015). Some gram-positive bacteria are also found to release OMVs (Kim et al 2015). The role of the vesicles, released by an aquatic cyanobacterium, in marine carbon flux was implicated some time back (Biller et al 2014).

**Role of the Vesicles in Secretion and Nutrition**

The vesicles play multifaceted roles in bacterial physiology. They constitute a mode of secretion. Bacteria need to secrete a wide variety of substances in the surroundings to acquire food, for adhesion, to invade host cells (pathogenicity) and also to adapt themselves to various types of environmental stress factors. Secretion through the OMVs offers several advantages. The secreted materials (enzyme, toxin) do not get diluted in the external aqueous environment when packaged into the vesicles and they reach the site of action in a concentrated form. When the secreted materials are hydrophobic in nature, they do not mix with the external aqueous environment. The problem can be bypassed when the secretion is made through the OMVs. Further, more than one substance can be secreted together through the vesicles. The OMVs also enable some pathogenic bacteria to sequester iron from an iron-deficient environment (a situation encountered inside the host) by virtue of the presence of some iron-binding proteins on their surface (Chatterjee and Choudhuri 2013).

**Role in quorum sensing and biofilm formation**

Bacteria in natural environments form consortia with other microorganisms. They get attached to a solid surface, secrete some extracellular polysaccharides and get embedded into them. These consortia are called biofilms.