

Knowledge (*scientia*), Fiction, and the Other in Cervantes's *La Gitanilla*

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In *Forms of Modernity: Don Quixote and Modern Theories of the Novel*, Rachel Schmidt employs a renewed concept of Romantic irony in order to resituate Immanuel Kant's 'Copernican revolution' with respect to postmodern thought in a persuasive bid to reconfigure the genealogy of novelistic theory. By forging deep links between the historical predicaments of her chosen theorists and their evolving thought, Schmidt complicates and renews our appreciation for the multi-voiced writings of Schlegel, Lukács, Unamuno, Ortega y Gasset, and Bakhtin according to (neo)Kantian notions of cognition, judgment, and aesthetics. Schmidt's study is also indicative of, and instructive for, the current proliferation of 'scientific' approaches to early modern cultural history, and Cervantes's works in particular. From historiographical studies that reevaluate Spain's role in the scientific revolution, to the reading of early modern literary texts through contemporary paradigms such as quantum mechanics or embodied cognition, we are witnessing increasingly diverse and contradictory attempts to bring Cervantes's (post)modern aesthetic experiments to bear on modernity's problematic and often violent relationship with science and technology.¹

A principal motive of historiographical studies like María M. Portuondo's *Secret Science: Spanish Cosmography and the New World* is to 'rescue' Spain from the margins of modernity by underlining the robust—if decidedly pragmatic—production, traffic, and implementation of scientific literature, especially in the late sixteenth century.² Taking a

different tack, the so-called ‘cognitive turn’ considers Cervantes’s works through recent developments in Embodied Cognition and Theory of Mind, offering itself as a corrective of sorts to the panoply of ideological ‘-isms’ that sprang from Deconstruction and New Historicism.³ Curiously, this attempt to elide the ideological by focusing on mind-body-environment matrices runs the risk of reviving scientific positivism just when Quantum Theory (QT), appears poised to overcome it.⁴ Due to its privileging of the contingent moment and matrices of observation and measurement in the production of scientific knowledge, QT seems to hold more promise, although the unavoidable anachronism proves difficult, but not impossible, to overcome in a field as philologically anchored as Golden Age literary studies. This, in spite of the rather obvious structural parallels between QT and early modern expressions of perspectivism, not to mention the historical coincidence of modern theories of the novel and the theory of relativity (Schmidt). The goal of the present study is to outline what a historically informed quantum approach to Cervantes’s *Novelas ejemplares* might look like.⁵ One advantage of this approach is that Spain’s so-called eccentricity, or *otherness*, with respect to the rise of modern science and its mechanistic and deterministic understanding of physical causality, becomes an ally rather than a liability.

I will begin with the particular, and somewhat peculiar, scientific revolution that Schmidt places at the center of her study. What she means by ‘Copernican revolution’ with respect to Kant is not exactly what we have come to expect from more canonical approaches to the scientific revolution. Yes, the liberation of Earth from its subservient status within the Ptolemaic crystalline spheres leads to the questioning of the tenets of neo Scholastic determinism and the concomitant subversion of substantialist political and

social hierarchies (Kuhn, Foucault, David Castillo and Lollini). And, yes, free will (*libre albedrío*) is given a compatibilist leg-up by theologians and philosophers such as Luis de Molina in an era that, not coincidentally, experiences aggressive attacks on political, intellectual, and even geographical exploration and experimentation (Feldhay).⁶ Schmidt glosses all of these commonplaces, but she does not dwell on them, because the goal of her philosophical discussion is the excavation, clarification, and projection of Kant's categorical imperative as it relates not to the self *per se*, or its knowledge of the world, but instead to the subject's moral imperative with respect to the *Other*: "The valorization of art corresponds to the ethical valorization of other human beings, according to basic worth or dignity (*Würde*)...and most importantly, judgment enables the individual to fulfill the Kantian moral imperative to treat others as ends and not as means" (125). Just as the untethering of Earth from its abject (meta)physical position within the mediievally conceived *Ecumene* reorganizes the cosmos into something more akin to Gracián's billiard table or Cervantes's *mesa de trucos*,⁷ the relationship between the self and its knowledge of the world must now be mediated through its relationship with other subjects, all *other* subjects. Anticipating Leibniz, what we end up can only be mapped and tracked through a poetic calculus of infinite curves, or lines of convergence and escape (Gilles Deleuze, *The Fold* and *A Thousand Plateaus*). In short, we enter into paradigms of aesthetic and *physical* relativity.⁸

My claim in this analysis of Cervantes's novella *La Gitanilla* is that not only do each of Cervantes's tragicomic heroes of romance, for example, reveal a unique trajectory, or set of discursive and ethical 'worldtracks';⁹ they are also better understood in and of themselves when they are placed in dialogic relation to other generic

predicaments, or arguments, even or perhaps especially when such juxtapositions are *not* explicitly called for by the text. According to Schmidt, this is what Romantic irony consists of, as she amply demonstrates in her clever and dialogic analyses of the silences and excesses in the novelistic canon. This is especially the case in her analysis of Bakhtin, which argues that the Russian philosopher's copious footnotes rub against the grain of the more ideologically and politically conservative body of his texts. According to Luis de Molina's early modern writings on free will, authors such as Bakhtin (and Cervantes) cede protagonist roles to so-called 'secondary' influences, which, in turn, determine the direction of epistemological and ontological arguments in their texts. More on Molina later, but for now I would like to show how this *implicit structural irony* complicates the meaning(s) of a work like *La Gitanilla*.¹⁰

There are a great number of puzzling parallelisms and juxtapositions in the opening romance of the *Novelas ejemplares*. For Avalle-Arce, Márquez-Villanueva, and Chad Gasta, this is because Cervantes is experimenting with more than one genre, including folkloric expressions, such as the poetic *pulla* (Márquez-Villanueva), and of course the picaresque. Although it is tempting to map a trajectory moving from the more *vulgar* world of the picaresque to the more refined plane of romance (Forcione, Avalle Arce, Clamurro, ter Horst), my arguments will follow the path laid down by George Güntert, who successfully links Cervantine irony to (post)modernity when he writes that "Lo característico del mundo cervantino no es, pues, la existencia de diferentes planos ontológicos (material-espiritual; temporal-permanente) sino su coexistencia y aun su compenetración y mezcla" (109). This is very close to what I mean by *implicit structural irony*, since what Güntert underlines is Cervantes's dialogic as opposed to dialectical

assemblage of fictional worlds. By contrast, studies by Casaldueiro, Forcione, Avall-
Arce, Ter Horst, and Clamurro emphasize the dialectical movement from the mundane
and chaotic towards a transcendental, or more *authentic*, resolution. I would argue that an
analysis of Cervantes's implicit structural irony can help explain why the abrupt and
violent ending of *La Gitanilla* and other novellas that end in marriage leaves one with the
sense that an opportunity has been lost (see Kartchner). A host of critics has tried to make
sense of Preciosa's loss of freedom and voice in generic, structural, narrative, or religious
terms, but my claim here will be that the discerning reader is meant to resist the
temptation to find redemption in Preciosa's marriage and is led to dwell instead on the
nonsensical closure of the piece. Indeed, my main argument will be that this *nonsense* is
precisely where the Hispanic baroque's contribution to the scientific revolution is most
apparent, and problematic.

A curious facet of *La Gitanilla* that has received relatively little attention concerns
the fact that the reader is never given concrete knowledge or understanding of what
Preciosa is thinking or what her 'authentic' desire might be. We know what she doesn't
believe—the gypsy patriarch's ramblings concerning the worldview of the gypsies—, and
we know what she doesn't want—to be bought outright by a randy nobleman. However,
we are never sure if the poems she sings are her own; nor is she herself even certain of
where her own ingenious and timely interventions on jealousy or love originate. The
closest we come to seeing into her soul is when she credits “un cierto espiritillo” with her
tendency to hold forth on a surprising number of topics with no apparent previous
schooling other than her upbringing with her gypsy grandmother. Gerli writes: “In the
end, Preciosa's noble lineage is indeed revealed, but she proves noble not by reason of her

parents' privileged social status, but by virtue of the 'cierto espiritillo fantástico' (p. 38) which shapes her values and her actions" (32). More confusing still are her repeated warnings not to take anything she says too seriously: "Y sepa que no sé nada de lo que digo, y no es maravilla que como hablo mucho y a bulto, acierte en alguna cosa" (94). Unlike the victimized heroines of honor intrigues in the *comedia*, Preciosa's character is not given to soliloquial introspection or doubt, which removes any solid ground from beneath her theatrical performances. As Francisco Sánchez has argued: "La narrativa se convierte en un constante proceso de ruptura con la percepción teatral y, por consiguiente, con los propios registros mentales del individuo" (32). In sum, Preciosa ingeniously and stubbornly embodies what the rest of the characters participate in for their own ends: deception and deceit.

Indeed, Preciosa explicitly states that her acceptance of Andrés's advances was based on her own desire for personal *medro*, which would seem to reflect the picaresque education provided by the old gypsy grandmother rather than her 'innate' noble being (*ser*):

Ella, con vergüenza y con los ojos en el suelo, le dijo que por haberse considerado gitana, y que mejoraba su suerte con casarse con un caballero de hábito y tan principal como don Juan de Cárcamo, y por haber visto por experiencia su buena condición y honesto trato, alguna vez le había mirado con ojos aficionados; pero que, en resolución, ya había dicho que no tenía otra voluntad que aquella que ellos quisiesen. (131)

Her acceptance of the marriage proposal is couched in a gesture of absolute paternal obedience and relative silence, a silence that effects a radical change in her persistent, even excessive, garrulousness throughout the rest of the novella. Nevertheless, if we put

all of these contradictions together, Preciosa's actions can be read as a careful and clever navigation of the *apparently* contradictory patriarchal orders through which she moves.

As for Andrés, lies, blood, and money mark his entry into and departure from the world of the gypsies. Both the adoption of the name Andrés and his common law betrothal to Preciosa are ritualistically consummated by the sacrifice and burial of his mule along with the trappings of his noble identity.¹¹ (This whole scenario makes for an interesting contrast with Don Quixote's resurrection of Rocinante and disinterment of the tarnished and rusty, Quesada/Quijada family armory.) Structurally, at least in terms of the loss or gain of identity, the prolonged negotiation of the beast's fate and the grotesque description of its strangulation mirror the way in which Andrés is beaten when he is taken into custody by the authorities as well as Preciosa's mother's violent stripping of her estranged daughter in the search for the telltale birthmark under her left *teta* and her webbed toes.¹² Also notable is the gypsy community's assurances that Andrés, himself, would not recognize his own *mula*, once they finish disguising him, much as Preciosa goes unrecognized by her own parents, even after the grandmother shows them the infant jewelry, a clear reference to recognizable amulets and such in the romantic tradition (see Northrop Frye). An Augustinian reading might conclude that these scenes of misrecognition and recognition, respectively, signify Andrés's entry into the comparably bestial cosmos of the gypsies, and Preciosa's departure from the same. However, Andrés's return to his 'honorable' self is punctuated by his murder of an officer of the law who punched him after he was taken into custody because of the false accusations of *la Carducha*; so there is violence at both forks in the road.¹³ The ritualistic nature of the

violence and rhetoric of all of these scenes underlines the fundamental cognitive and social structures placed into dialogic play by Cervantes (Bell, *Ritual Theory*).

Mediating and/or abetting all of these rituals is the conspicuous and excessive flow of currency. Preciosa and her back-up dancers are responsible for very overt exchanges symptomatic of early modern Spain's incipient culture industry (Seiber, Maravall, Godzich and Spadaccini). Andrés, for his part, compensates the gypsies for the money they were hoping to get by disguising and selling his rented mule, all the while ostentatiously distributing gold to disguise his lack of larcenous aptitude and attitude. He is the mirror image of Preciosa in his duplicity.¹⁴ If there is a moment of what Victor Turner would call ritual *communitas*, in the pastoral songs of Andrés, Clemente, and Preciosa, it is only possible because the three nobles have been momentarily removed from their circulation in the Court (96). Thus, in the denouement of the *novela*, the family of the murdered lawman is placated with another 4,000 ducats from Andrés. And this is not the only case in which the institutions that are supposed to uphold the law succumb to bribes, or worse, encourage citizens to purchase their complicity, including the *tiniente cura*, who absurdly postpones the much anticipated wedding due to the families' failure to provide the proper paperwork. Such scrupulousness after so many scruples have been abandoned, bought, sold, or simply ignored can only be seen as ironic. In his study on the Baroque public sphere in Spain, William Childers writes, "The status of any display of officially sanctioned qualities is radically undermined by the awareness that the same person who makes it may elsewhere be engaging in a partially hidden, but still public practice, with quite a different meaning" (169). This duplicitous circulations of bodies, money, and poetry speak to the generic collision between bourgeois-picaresque and

aristocratic-romantic aesthetic codes. It also marks the spot where I will begin to link the scientific line of inquiry promised at the beginning of this essay with my analysis of the structural ironies that interrupt and magnify our enjoyment and confusion in *La Gitanilla*.

In *Lágrimas en la lluvia*, Rosa Montero's 2011 science fiction homage to Ridley Scott's *Bladerunner*, the narrator follows Bruna Husky, a military *replicante* (rep) who has finished her obligatory tour of duty in intergalactic colonial wars and become a private investigator.¹⁵ As a manufactured good, Husky was required to fulfill her 'organic' functions for a number of years before being allowed to exercise self-determination. Montero's novel provides a useful sounding board for *La Gitanilla*, whose plot seems to move in an opposite direction, from free will towards obligatory "service." We meet Bruna post-servitude when, in classic Hitchcockian fashion, she becomes interpellated into a clandestine war between the species, which features a sinister attempt to rewrite the history of the world in a way that justifies the annihilation of the reps and all other "aliens." More germane to this study is Bruna's love-hate relationship with the memory *software* installed during her manufacture, which comes complete with a number of fetishistic objects through which her identity is cathected and reinforced. This 'artificial' memory motif becomes quite Cervantine, even Unamunian, when Bruna meets the author of her memory, a successful novelist named Pablo Nopal, who has been barred from the *memorista* profession due his alleged murder of his father.

One of the more potent critical gestures in *Lágrimas* is the substantiation of the knowledge and self-consciousness of the manufactured *other*, who holds a privileged view of the unrestrained barbarity of the technocratic imperialism whose vanguard she was created to buttress and extend.¹⁶ Just as important is the desubstantiation of the

assumed ontological distinction between the memory of Bruna and that of Nopal, who based his assemblage of Bruna's childhood memories on his own damaged upbringing. The following exchange occurs between Bruna and her therapist, starting with the therapist:

--Existe el amor que sientes por tu madre, por tu padre.

--Mentira.

--No, ese amor es real. Tu desesperación es real porque tu afecto es real.

--Mi desesperación es real porque mi afecto es un espejismo...

--El mío también. Todas las memorias son mentirosas. Todos nos inventamos el pasado. ¿Tú crees que mis padres fueron de verdad como yo los recuerdo hoy?

--Mira... No puedes entenderlo. ¡Un humano no puede entenderlo! ... Nunca hemos sido verdaderamente únicos, verdaderamente necesarios para nadie... (153-54)

Lágrimas challenges and eventually undoes the ontological exceptionalism at the heart of Bruna's lament even as it underlines her historical specificity, reality, and, yes, *necessity*. In the end, this testing of the barrier between the 'false' memory, or dream world, and the 'real' memory of the symbolic world should look very familiar to us, since it represents Cervantes's and the Spanish Baroque's most powerful commentary on and contribution to what Barrera-Osorio calls the "early scientific revolution": "the commercial and empire-building culture of this period legitimized the new empirical practices of the new science.... Science is not always a neutral activity in pursuit of the truth but rather a political activity aimed at controlling nature" (8-11).¹⁷ It is the consciousness of the temporally contingent nature of truth and being that is awakened by the ontological confusion at the heart of Cervantes's *Novelas ejemplares*.

Returning to Preciosa, her personal history holds to the structure of the *replicant* in that her identity was stolen/fabricated at the beginning of the novella and seemingly anchored at the end. I would suggest, moreover, that the tokens and clothing kept by the gypsy grandmother introduce a memory structure that is every bit as problematic as Pablo Nopal's endowment to Bruna of the mementos from his own childhood. The principal point of contact has to do with the role of free will. The gypsy woman, of course, steals Preciosa from her birth family and inculcates her into an alien worldtrack, that of the gypsies and (aesthetically) the picaresque. She also constructs a false memory for her and interpellates her into the role of gypsy maiden, complete with beguiling dance moves, an alluring singing voice, and pedestrian poetic abilities, which the adolescent girl supplements with the help of a page who sells/gives her sonnets seemingly for a song. Yet this false patrimony is what attracts the reader and, more importantly, what becomes the basis of the identity whose loss the reader laments when she is married at the end. When we first meet Preciosa, she is captivating the desire, passion, and money of aristocratic 'patrons,' who materially reward her ability to enflame their passions. There is a markedly mercenary aspect to her performances, which extends to the demands she places on Andrés. What is more, she seems to possess a native intelligence about matters of the heart that astonishes even her gypsy stepmother. Where does such knowledge and apparent wisdom come from?

Her picaresque upbringing and *ciencia poética* are the obvious places to start, but I think we also need to add her specific experience as a woman who dances for money. In a currency-based economy, she knowingly ups her value as a commodity by appealing to a competing range and number of 'clients'. In this light, her dissertation on 'celos' can be

seen as a theoretical excursus on how commodity value is inflated and manipulated. Joan Ramón Resina observes: “Preciosa sabe muy bien que en la seducción triunfa el que disimula mejor el deseo e insiste menos en el goce. La dialectica de la libertad y la dependencia en los signos de la seducción y el deseo es comprendida a la perfección por algunas mujeres cervantinas” (272). Of course, we cannot come to these conclusions exclusively by analyzing her words, as she herself denies knowing completely what she is talking about, which once again calls into question the authenticity of her performances. What I am getting at is that, just as in the case of Bruna Husky, Preciosa’s identity and memory have a dreamlike quality that never really goes away. Neither the stripping of her body nor her betrothal and marriage to Juan de Cárcamo reveal the desire and thus the meaning behind her actions. In Kantian terms, Cervantes does not allow us to exercise any substantial knowledge vis-à-vis *the other*, which is quite possibly his most potent contribution to the Copernican revolution. What we encounter instead is one obstacle after another in the search for knowledge and understanding. Most frustrating of all is the fact that the most persistent and opaque obstacles are the very social and literary codes that promise to shed light on the meaning of Preciosa’s journey from nomadic gypsy girl to married noblewoman. Rather than comfortably situate her within her noble line, the courtship ritual revels in violence and subterfuge, all of it designed to elicit the good faith of the future husband and secure the voluntary obedience of the future wife. It is here where free will comes into the picture or, rather, refuses to enter the picture at all.

Our understanding of free will in the Counter Reformation has been complicated by Rivka Feldhay’s observation that there are at least two paradigms of free will that compete for superiority and legitimacy. The more conservative model is defended by the

Dominicans, who believed that God's foreknowledge of man's actions is absolute due to the fact that God's knowledge and will must remain inseparable if his omnipotence is to be absolute (Feldhay 205). There is no room for multiple truths here, which would arise only if there were to appear a space of indetermination between divine knowledge and the exercise of divine will (Feldhay 179-80). In contrast to the Dominicans, the Jesuits set out to situate God's knowledge and will according to a temporal relationship in which the exercise of his will in the realization of a divine decree is postponed. Until such time as the decree is willed, God's foreknowledge remains suspended: "Separate and prior to the decree, the Jesuits contended, God has '*scientia media*' by which he knows with a certain and infallible knowledge man's future acts, although these are not yet predestined by his will. To some degree, God's voluntary decree is guided by his knowledge" (Felday 205). This 'middle knowledge' is where Molina's philosophical innovations become most notable, and modern. Middle knowledge concerns all those possible worlds that come into existence when a propitious 'occasion' presents itself to a human actor, i.e., secondary agent. God has absolute knowledge of all the possibilities that may come about, depending on the decision of the secondary agent; but he does not have foreknowledge of which *actual* world *will* come into temporal existence. When an 'occasion' appears on the horizon, a large number of these possible worlds becomes apparent, but it is up to the free will of the choosing subject to decide which world will come into temporal existence.¹⁸ This is what happens when Andrés attempts to flee from the advances of La Carducha, who has offered herself to him much like the emblematic figure of Occasion herself: "Andrés, como discreto—determinó de poner tierra en medio y desviarse de *aquella ocasión* que el diablo le ofrecía" (123; my emphasis). What also becomes

apparent in *La Gitanilla*, however, is that an individual subject's decision/action is never all-determining but depends, in turn, on the ways in which other subjects react to, or anticipate, the same occasion. *La Carducha* anticipates Andrés's flight and attempts to halt it through her subterfuge.

Here is where I believe that quantum theory can shed some light on what is going on, both in Molina's paradigm of free will and Cervantes's novelistic experiments. According to Henry Stapp in *The Mindful Universe*, "The basic move in quantum theory is to shift, *fundamentally*, from the airy plane of high-level abstractions, such as the unseen precise trajectories of invisible elementary material particles, to the nitty-gritty realities of consciously chosen intentional actions and their experienced feedbacks, and to the theoretical specification of the mathematical procedures that allow us successfully to predict relationships among these empirical realities" (23).¹⁹ Missing from this explanation is the quasi-infinite number and complexity of possible relationships, given the equally infinite number of factors in play for any given 'occasion.' Moreover, it becomes immediately obvious that Cervantes's aesthetic practice/theory goes beyond even quantum theory, because the idea of 'consciously chosen intentional actions' is extremely problematic in all of his works. I have gone to some lengths to underline how precarious this notion is in my analysis of the actions and words of Preciosa. The problem becomes much more concrete in *El coloquio de los perros*, when Cañizares speculates on whether she and her cohorts have congress (convites) with the Devil:

Hay opinión que no vamos a unos convites sino con la fantasía en la cual nos representa el demonio las imágenes de todas aquellas cosas que después contamos que nos han sucedido. Otros dicen que no, sino que verdaderamente vamos en cuerpo y en ánima; y entrambas opiniones tengo para mí que son verdaderas, puesto que nosotras no sabemos cuándo

vamos de una o de otra manera, porque todo lo que nos pasa en la fantasía es tan intensamente que no hay diferenciarlo de cuando vamos real y verdaderamente. (341-42)

This limit on the extent to which the self can come to knowledge of its own phenomenal experience, let alone the world around it, is a central motif throughout Cervantes's oeuvre and of the Spanish baroque itself.

I think it is useful to consider the generic heterogeneity of Cervantes's novellas in light of QT, in large part because of all of the critical work that has been done trying to tie the loose threads in Cervantes's works together. Casalduero and Forcione have formulated the most grandiose attempts to bring his works to signifying closure by deploying universal religious paradigms. Yet their differing conclusions, much like the dispute between the Dominicans and the Jesuits, display significant impasses and conflicts inside of Catholicism itself. One thing that Molina's clever if infuriating paradigm of free will makes clear is that just because an author brings a potentially subversive, untamed romantic relationship to a sacramental closure, we should not assume that the other potential endings in the story are not equally real in some absolute sense. The Jesuits defend that all of the potential decisions of secondary actors along with all of their potential ramifications, implications, etc., are equally real in the absolute sense of God's omniscience. What God cannot anticipate is *which* world will come into temporal existence. Thus, Providence becomes a compromise, or alliance, between God and the secondary agent. And in Cervantes, secondary agents and their colliding worldtracks proliferate to an almost infinite degree. These secondary agents include, by necessity, the reader, who is the co-creator of the artifice and whatever truths are communicated therein. And if the reader feels a profound sense of loss at the silencing of Preciosa; or pleasure at the torture of Juan; or comedy in the procedural machinations of

the priest, then some alternatively imagined, providential realities are coming into existence through that affective investment, as Bruna Husky's psychoanalyst correctly observes. In the words of Julio Baena, "Were it not for the tears in the text, as well as for the Prologue and the very disposition of the novellas, the reader would have no choice but to follow the old conclusion that they are truly exemplary, even reactionary" (214). As it stands, however, and quite compatibly with what Stapp calls the current hegemonic scientific paradigm, the dialectic of guilt gives way to the dialogism of multiple and equally legitimate, self-creating *others*.

Similarly, Güntert endows the baroque author with godlike powers of creation: "Cervantes entrevé una *profunda analogía* entre la actividad del poeta-creador y la acción divina de la Providencia. Ahora se comprende también por qué Cervantes insiste tanto en glorificar la poesía y por qué la pone por encima de todas las otras ciencias" (132).²⁰ I would only add that the limited omniscience of Cervantes's demiurge reflects analogous limits on the providential god theorized by Molina and the Jesuits. To wit, when placed into circulation, authorial creations/replicants take on lives of their own, and their evolution and meaning ultimately escape the complete control of the A/author. Preciosa and Andrés are cases in point, in that the occasion of their acquaintance underlines how unpredictable temporal existence can be, once desire comes into play. In both cases, a conduit is opened between the transcendental and temporal planes, and human actors become co-creators of the universe.

Vicente Pérez de León has probably been the most daring critic to situate Cervantes within avant-garde scientific thought during the Baroque. According to his

theoretical model in *Cervantes y el cuarto misterio*, Occasion would be an important instance of what he terms a *sinculacro*:

[E]n los *sinculacros* la explicación de su sentido conlleva un componente puramente causal, al ser originados en el contexto del arte-arteficio creado por el ser humano con el propósito de alterar el orden de la existencia de un individuo o grupo mediante la creación de un poderosísimo vínculo que reproduzca cuidadosamente el efecto de una sincronización. (28)

His negotiation of early modern theories of scientific *acausality* (primarily in the figure of Giordano Bruno), quantum physics, and the synchronistic philosophical program of the *I Ching* creates a provocative framework for approaching the most oft-commented conundrums in Cervantes's works. Through the concept of *sinculacro* he is able to tease out the *acausal* substrate that inhabits scientific thought in both early and late modernity. For instance, it functions quite well in underlining that Preciosa's obedience at the end of the *La Gitanilla* might be read as a continuation, and not the end, of her beguiling theatricality, since her silence may be motivated by the sense of perverse enjoyment that her father exhibits in the torture of Andrés and that her mother displays when she takes possession of her daughter. David Castillo and Massimo Lollini find a homologous incorporation of unreason into modern rationality in Giambattista Vico's *New Science*:

At the heart of Vico's view of history, theology and poetics, one can find an inclusive conception of reason that re-incorporates the realm of imagination (*universalis fantastici*). His notion of "poetic imagination" allows him to recognize the importance of singularities out of which universality is created. (xvii)

One such singularity follows on Preciosa's father's appropriation of history upon being reunited with his daughter. When he enters the prison to speak with Andrés, his first words to the lovestruck murderer are filled with both violence and enjoyment: "¿Cómo

está la buena pieza? ¡Que así tuviera yo atraillados cuantos gitanos hay en España, para acabar con ellos en un día, como Nerón quisiera en Roma, sin dar más de un golpe!” (130). The *padre-cum-verdugo*'s opening words deliver a cruel joke concerning Andrés's accommodations. Just in case the sadistic humor is lost on the reader, the Corregidor follows it up immediately with his imagined identification with the Roman Emperor Nero. This is an amazingly problematic comparison on a number of levels, most immediately because Nero's starring role in the persecution and martyrdom of early Christians is a Classical commonplace. In terms of structural irony, the early modern persecution of the gypsies is implicitly juxtaposed to the persecution of the early Christians in Rome, effecting a complete role reversal.

Nor do the gypsies escape this structural irony, as their enjoyment of thievery provides a comparatively harmless foreshadowing of the Corregidor's enjoyment of torture. The gypsy patriarch tells Andrés: “has de gustar dél de modo que te comas las manos tras él” (104). Becoming a gypsy *ladrón* is not only a vocation but also a source of pleasure, just as the Corregidor's juridical profession becomes a source of perverse enjoyment. This may be the most disturbing and ideologically productive structural irony in the *novela*. It is both an irrational cause—*acausality*—and absolute limit on any 'scientific' attempt to articulate concrete knowledge of the political and cultural dynamics at play in early modernity. More importantly, it moves beyond Kant's moral imperative to treat the other as an end in itself by underlining that the subject is, in fact, other to *itself*. In sum, treating the other as an end in itself is the place where the subject's lack of knowledge about her own identity meets up with her lack of knowledge concerning the *other*. Although she obeys the wishes of her father, Preciosa literally does

not know herself as Constanza, thus her return to her 'authentic identity' becomes an act of pure estrangement, a return to her lack of being.

Returning to Montero's novel, Pablo Nopal, the author of Bruna Husky's memory-identity, is struck by the fact that he does not understand how the mind of his creation really works because ultimately he does not understand why the scenarios he has written into her identity predominate in his own. This impasse becomes the marker of sameness between creator and creation, as Bruna, herself, is constantly surprised by the insistent demands of her own materiality and the power of her emotions, even though, in the first case, she is a manufactured artifact (not self-creating) and, in the second, her emotions are often sparked by 'false memories.' In the first chapter of *Tarrying with the Negative*, Slavoj Žižek studies the Kantian framework at issue in this essay through Ridley Scott's *Bladerunner*, the precursor to Montero's novel.²¹ He notes that "a successful recollection means that, by way of organizing his life-experience into a consistent narrative, the hero exorcises the dark demons of his past. But in the universe of *Bladerunner*...recollection designates something incomparably more radical: the total loss of the hero's symbolic identity" (12). He then goes on to point out that the Cartesian assumption that there is something positive 'out there,' beyond the symbolic trappings, is what Kant inexorably deconstructs through his categorical imperative: "Descartes' error was precisely to confuse experiential reality with logical construction qua the real-impossible.... One has to add that *this lack of intuited content is constitutive of the I; the inaccessibility to the I of its own 'kernel of being' makes it an I*" (14; emphasis not added). Every character in *La Gitanilla* demonstrates this essential lack in one fashion or another: Andrés cannot explain his sacrifice for Preciosa, who cannot explain where her

own words come from, etc. Their circulation through distinct symbolic economies changes their value, even to themselves.

The reader of this essay will have recognized that the main object of this inquiry into Spain's relationship with the scientific revolution is quite different from the studies cited at the beginning of this essay. Undoubtedly, there was significant scientific activity in sixteenth- and early seventeenth-century Spain, activity that has led authors like Cañizares-Esguerra to claim that the scientific revolution proposed by Bacon's *New Atlantis* was modeled on Spain's pragmatically scientific approach to conquering and colonizing the New World (19). Although this view serves as an important corrective to received wisdom concerning Spain's 'limited' role in the evolution of modern science, I find it limiting with respect to the complexity and internal contradictions of the scientific revolution, as well as for what constitutes a substantial contribution to knowledge. In Spain, one of the most significant legacies of philosophical, and aesthetic, thought was not aimed at furthering the mathematical and empiricist paradigms that would give rise to Newtonian physics, but rather at questioning its underlying assumptions: to wit, that one can capture and control the world out there through mathematical logic and technological advances.

¹ See Julia Domínguez's recent essay "Coluros, líneas, paralelos y zódiacos: Cervantes y el viaje por la cosmografía en *el Quijote*" for an excellent summary and bibliography of recent scientific approaches to early modern Iberian culture. See also *La ciencia y El Quijote*, edited by José Manuel Sánchez Ron.

² Other important recent studies include Barrera-Osorio's *Experiencing Nature: The Spanish American Empire and the Early Scientific Revolution*, Cañizares-Esguerra's *Nature, Empire, and Nation: Explorations of the History of Science in the Iberian World*, and David C. Goodman's *Power and Penury: Government, technology and science in Philip II's Spain*.

³ See the volume of *Cervantes* (32.1, 2012), *Cognitive Cervantes*, edited by Howard Mancing and Julian Simon.

⁴ See especially Henry Stapp's *The Mindful Universe*, which underlines the historical coincidence of the theory of relativity and post-modernist developments in art and philosophy, an observation repeated by Schmidt.

⁵ Amy Williamsen and Chad Gasta have made important contributions to this approach in their respective studies of *Los trabajos de Persiles y Sigismunda* and *Don Quijote*.

⁶ The bibliography on Molinism is quite extensive, especially in the field of analytical philosophy. See particularly Feldhay, Flint, and Freddoso,

⁷ The Salamancan mathematician and Copernican scholar Muñoz writes in 1572 that the recognition that comets are not earthly, i.e., atmospheric phenomena, but instead travel ‘freely’ through the heavens signifies that planets and stars move through the cosmos like ‘fish in the seas...and birds through the air’ (Navarro Brotons 816). It is worth noting that Muñoz publishes his own observations in *El libro del nuevo cometa* in 1573, before Tycho Brahe (Cañizares-Esguerra 38-43); in fact, Brahe references Muñoz in his own work, which is generally seen as the tipping point in the movement away from the Ptolemaic system (Kuhn).

⁸ My recent essay in the volume *Spectacle and Topophilia* reads early modern innovations on the doctrine of free will according to Neal Stephenson’s thought experiments with quantum physics in his science fiction novel *Anathem*. The central claim is that Luis de Molina’s paradigm of middle knowledge and its emphasis on God’s omniscience with respect to all the possible ramifications and implications of man’s free choices bears a non-trivial and useful resemblance to postmodern theories of multiple realities, virtual or real.

⁹ I have borrowed the term “worldtracks” from Neal Stephenson’s philosophical sci-fi romance *Anathem*. For a more extensive discussion of Stephenson see my “Signs of the Times: Emblems of Baroque Science Fiction.”

¹⁰ In the discussion following David Castillo’s 2013 conference paper presented at the University of Kentucky, William Egginton makes a similar claim concerning a kind of ironical *necessity* that structures Cervantes’s texts, an argument that is intimately related to the bimodal discursive regimes he develops in *The Theater of Truth*: the *major* and *minor* strategies.

¹¹ And just as in the case of Sancho’s *burra*, Andrés’s sacrificial *mula* is female (Nelson, *The Persistence* 256n26).

¹² Definitions of ‘teta’ in Covarrubias emphasize the bestial connotations of the word, which is reserved almost exclusively for livestock, while the webbed toes provide an even baser undertone to the recognition scene. Thus, the gypsies’ desire to disguise Andrés’s *mula* and sell her in the market mirrors in a curious way the gypsy grandmother’s disguising and ‘renting’ of the stolen child, until she is unmasked by her mother. In the denouement, on the other hand, the burying of Preciosa’s freedom and identity under the weight of her ‘authentic’ nobility provides a violent and tragic repetition of the perverse slaughter of the rented mule.

¹³ Both Avalue-Arce and Recapito highlight the ethnic violence suffered by the gypsies under the Hapsburg regimes. Recapito even notes that gypsy children were taken away from their families in order to ‘educate’ them and terminate the line, so to speak. For Recapito, this makes *La gitanilla* “a vehicle for Cervantes’s ‘prise de conscience’” (27), a point developed by Michael McGaha in his clever framing of the plot within the phenomenon of human trafficking as carried out on the US-Mexican border (91).

¹⁴ Charles Presberg writes: “[Andrés] agrees, in word alone, to form part of the gypsy militia; yet in practice he refuses to steal, and thus rejects the very basis of the gypsy society’s self-definition and perverse camaraderie” (65).

¹⁵ This ‘original’ is, of course, itself based on a short story by Philip K. Dick, “Do Androids Dream of Electric Sheep?”

¹⁶ This is not unlike the way in which the juridical school of Salamanca ‘manufactures’ the figure of the *indio* in its bid to legitimize the Spanish conquest and colonization of Amerindian populations in the New World (see Moisés Castillo’s *Indios en escena*, especially the Introduction”).

¹⁷ See also Carolyn Merchant’s powerful (and controversial) *The Death of Nature: Women, Ecology, and the Scientific Revolution*.

¹⁸ Occasion, like Fortune, is an “emblematic” embodiment of time. Unlike Fortune, however, which lies beyond human control, Occasion can be grasped by her “forelock” and, thus, offers man a modicum of self-determination (See *The Persistence* 208-18); and “Eventos ocasionales” pp).

¹⁹ Amy Williamsen was one of the first critics to explore this shifting terrain in her book *Cosmic Chaos*, which playfully applied Heisenberg’s uncertainty principle to an analysis of Cervantes’s use of dark humor in *Los trabajos de Persiles y Sigismunda*. More recently, Chad Gasta, Vicente Pérez de León, and Alison Kreuger, among others, have looked more closely at the possible relationships between early modern scientific discoveries and related changes in epistemological thought, Cervantes’s aesthetic experiments, and more contemporary approaches to scientific inquiry.

²⁰ A recent treatment of poesis can be found in the Hispanic Issues volume edited by Anthony Cascardi and Leah Middlebrook, *Poiesis and Modernity in the Old and New Worlds*, Nashville, U Vanderbilt P, 2012.

²¹ I was pleasantly surprised by the fact that the particular book of Žižek that I had planned to use (I’ve read and used at least ten of them) included an analysis of *Bladerunner*, and it begs the question of whether it was coincidence, or whether on some level my memory led me to that discussion, which I had not read for several years.