

# **A Sociology of Treason: The Construction of Weakness**

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## Introduction

This paper has two aims. First, we wish to modify the vocabulary commonly used in the analysis of translation by introducing *antonyms to Actor-Network Theory's (ANT) sociology of translation* (Callon 1986a). *In contrast to ANT's emphasis on translation, we add a contrasting "vocabulary of treason" that includes processes of distortion, estrangement, rejection, and disruption.*<sup>1</sup> This enables a more complete telling of sociotechnical narratives in which power both expands and diminishes in processes of mobilization and disruption. Doing so extends ANT's efforts to analyze power accumulation, network building, and stabilization. Second, we tell the story of the disruption of the Greek disability movement and of the construction of Athens Metro, which highlights how conglomerations of human and non-human actors can simultaneously articulate both enrolment and exclusion, and demonstrates the analytical usefulness of our proposed analytic vocabulary.

In analyzing actor-networks, the process of mobilizing alliances and constructing networks has been a common and worthwhile focus. However, we believe it is also worthwhile to focus on the de-constructive aspect of ANT and to re-direct analytical efforts to phenomena to which the theoretical vocabularies of ANT have only recently been applied.<sup>2</sup> We argue that the vocabulary of translation implies simultaneous processes of treason (*trahison*), dissidence, and controversy, which reveal another dimension of the translation process and raise a new set of questions. Following Law and Urry (2004), who advocate producing conceptual models

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<sup>1</sup> The idea of studying the excluded through antonyms was originally hatched by Francis Lee, but the approach has evolved gradually and collectively over a series of conferences, reading groups, and discussions with Vasilis Galis, Martin Hultman, Per Gyberg, and others. See for example (Galis, 2006; Gyberg & Lee, 2009; Lee, 2005; Lee, 2009; Lee & Hultman, 2006; Lee & Hultman, 2007).

<sup>2</sup> There have been a number of proposals for solving this problem. In ANT, the exclusionary side of network building has always had a place (see, e.g., Callon 1980, 1986a; Law 1997). In addition, Serres (2007) has taken an interest in the betrayal and noise that can interrupt any translation. Feenberg (2003) has called for the study of anti-programs (see also Helgesson and Kjellberg 2005), while Lee and Brown (1994) have called for the study of smooth, rhizomatic, but hardly discernible associations. There have also been a number of efforts to mitigate this critique by introducing concepts such as enactment (Mol 2002), performative agency, hybrid collective (Callon and Law 1995), or agencement (Callon 2007). In another context, MacKenzie (2007) proposes the concept of counter-performativity to denote the failures of a financial model to produce specific economic behaviors. Another route to dealing with this problem has been suggested by Callon and Rabeharisoa (2003) who note that while the theoretical tools within ANT have been valuable for analyzing technology and the controversies that it creates, they have not paid attention to questions regarding relationships between experts and non-experts (pp. 193–194). Their attention centers on how disenfranchised groups (Callon and Rabeharisoa call them “concerned groups”) can gain a voice in science and technology. Concerned groups (e.g., patient organizations, environmental groups, consumers’ associations, involved individuals, and disability associations) are those social groups that are influenced by the development of technosciences (Callon and Rabeharisoa 2003, 2008; Galis 2006, 35).

that resist one-dimensional description and analysis, we introduce a vocabulary that explores the dark side of the translation process and the disruption of the actor-network.

In this paper we examine the antagonistic work involved in the construction of Athens Metro. By doing this, we follow Callon's observation that "an infinite number of repertoires is possible" to describe an actor network (Callon 1986a, 200). Like Mol (2002), we are grappling with the politics of technoscientific processes, attempting to come to terms with ways of enacting the good society, to demonstrate how other realities could be articulated and enacted. However, our strategy is different. Rather than opening up spaces for interference and change by undermining ontological unity, we highlight the processes of undoing a network, defeating an opponent, and disrupting a group of actors. This is not interference attempting to cast doubt on "Gold Standards" or the unity of disease (Mol 2002, 284). Rather, it is interference attempting to create a space for thinking through the making of weakness. This is politics on another level, one that makes weakness constructed rather than an inherent state of social processes. Ours is a strategy for interference in the world and for making visible enactments of weakness.<sup>3</sup>

Of course, the same logic could be applied to any of the post-ANT topologies as well, but rather than studying problematization, *intressement*, enrolment, and mobilization—the gathering of forces—we will study the gradual defeat and exclusion of a concerned group through our proposed *four moments of treason: distortion, estrangement, rejection, and disruption*. Our goal is to analyze the antagonistic processes that construct the powerless, the untimely, and the invisible, rather than focus only on the construction of the powerful (see Gad and Jensen 2010; Mol 2002). We therefore argue that part of the pluralism/multiplicity that ANT encompasses, is all the processes within the network that distort and exclude certain actors and their agendas.<sup>4</sup> The aforementioned moments of treason *do not* constitute chronological phases that historically succeed each other, but are rather overlapping aspects or layers of a heterogeneous process—in this case, the construction of Athens Metro—which have no necessary sequence.<sup>5</sup>

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<sup>3</sup> For a discussion of different types of epistemological politics and methodological choices see Galis & Hansson (2012).

<sup>4</sup> Or as Foucault would put it, "the production of knowledge cannot be understood through stories of domination but through antagonisms and resistances to established technosciences."

<sup>5</sup> Callon (1986a), in his account of the four moments of translation, notes that the different phases can in reality overlap (p. 203).

The process we describe is a political one and our questions resemble those that De Vries and Latour pose in their exchange about politics in science and technology studies (STS) (De Vries 2007; Latour 2007): How exactly does STS conceptualize politics, contestation and marginalization in the study of technosciences? And if we study construction stories, and the enactment of ontological politics, where does the making of weakness and/or inequality enter into the construction of fact and artifact?

For example, the vocabulary developed here offers (1) a theoretical alternative to the conceptualization of exclusion of disabled people from the configuration of the built environment (ontological politics) and (2) an empirical methodology to follow the disintegration of non-experts from the configuration of policies and techno-sciences related to disability issues.

### The Case: Making Athens Metro Accessible

Our case focuses on the network building involved in providing for the disabled during the construction of the Athens Metro between 1991 and 1993. The discussion will focus on two parallel phenomena: (1) the efforts of disability organizations to intervene in the initial construction work of the Metro project, and (2) the simultaneous actions of the Greek government both to exclude disability organizations from the design process and to disrupt the accessibility-Metro actor-network.

The idea of building a Metro system in Athens dates back to the 1950s. However, it was only in 1991 that the Greek government conducted the procurement for the Athens Metro. In 1992 construction began, but without obligatory provisions for accessibility in either the stations or trains. The first Metro contract (1991) did not include any *obligatory* clauses regarding accessibility, despite concrete efforts (by disability organizations, specific public administration departments, and individual actors related to the project) to influence the development of the Metro. As we will demonstrate below, the Greek government (1991–1993) attempted to exclude disabled people and their organizations from the sociopolitical arena by applying a political agenda that was less participatory (cf. Kioukias 1997, 314).

With Callon (2007), we argue that the Athens Metro accessibility configuration during the 1991–1993 period was performative in the sense that this process not only defined a sociomaterial environment (an inaccessible Metro) but also performed/enacted disability as an

effect. The dominant problematization for the Metro disregarded accessibility as an important factor in its decision making. This implies that the disability organizations and their claims were not compatible with the dominant problematization, and therefore failed. This is an empirical and theoretical story of powerlessness and treason alongside successful translations of power.

## The Fieldwork

Fieldwork and interviews for this study were part of the author's study of the construction of the Athens Metro (Galis 2006). The research included interviews with informants<sup>6</sup> representing key organizations,<sup>7</sup> and linked these interviews to important documents.<sup>8</sup> The goal was to reconstruct the political processes and interactions among state officials, politicians, and representatives from disability organizations.

## Disrupting Accessibility in the Metro

### *Changing Views of Disability*

For most of the twentieth century, disabled people and their organizations in Greece were politically weak. The dominant role of the Greek Orthodox Church downplayed the role of disability organizations by treating them as charity objects or sinners and by directing the dynamics of people with disabilities into conservative channels that accommodated the interests of those at the top of clerical hierarchies (Kouroubli 2000, 327). State policies and measures focused on methods of institutionalizing of disabled persons and treating their disabilities. The beginning of the 1980s, however, saw political changes that were to have

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<sup>6</sup> Politicians who belonged to the New Democracy party avoided any discussion with us concerning the issue of accessibility and the Metro project. The lack of input from representatives of the conservative party was counterbalanced by studying the parliamentary debates regarding the Metro contract and comparing this material with the claims of disability actors.

<sup>7</sup> For example, the Olympic Metro Consortium, Attiko Metro SA, Greek National Confederation of Disabled People (ESAEA), Panhellenic Union of Paraplegics and Physically Challenged, Greek Paraplegics Association, Panhellenic Union of Retina Patients, Panhellenic Association of the Blind, Ministry of Environment, Physical Planning, and Public Works, Ministry of Transport and Communications, Ministry of the Interior, Public Administration and Decentralization, and Ministry of Health and Welfare.

<sup>8</sup> The written material collected for this study is comprised by a variety of documents: laws of the Greek state, publications of disability organizations (including press releases, studies, and correspondence), ministerial decisions and directives, technical reports, and manuals. The parliamentary debate about the ratification of Bill 1955/91, including the approval of the first Metro contract, also constitutes an important source of empirical information concerning the historical development of the Metro project.

significant implications for disability issues. For example, the coming to power of PASOK (a socialist party) altered how the public administration treated disability. For the first time disabled people participated in election balloting and were assigned public administration positions. Simultaneously, the government ratified a number of financial measures for the accommodation of disabled people and their integration into society. Moreover, in the mid-1980s the establishment in the Ministry of Environment, Physical Planning and Public Works of the Department for Research on People with Special Needs marked an important shift: the Department stipulated measures regarding accessibility in urban spaces. This was the first time in the history of disability in Greece that disability was not associated only with economic benefits, access to employment, and positions in public administration but also with the urban environment (Galis 2006).

This change in the view of disability was also adopted by disability organizations in the early 1990s. By enrolling the European Union and other international institutions, disability organizations began to integrate accessibility issues into their agendas and to mobilize their demands. For example, they sought to have transport networks moved into areas without architectural obstacles that had previously exacerbated disability and isolated disabled people. At the same time, the initiation of infrastructure projects created the potential for disability organizations to demand that they be included as participants in the design and implementation of urban transport systems and to interest and enroll additional allies in their agenda.

These efforts affected the design and construction of the Athens Metro. Specifically, in late 1980s, actors involved in the procurement for the Metro were enrolled by the Department for Research on People with Special Needs and actively contributed to the adaptation of the Metro system to accessibility standards. A concrete product of this cooperation was the Planning Manual for the Metro procurement (EYDE METRO 1986). The manual introduced accessibility into the Metro work and provided a list of technical provisions for reducing transport disability (special section 4.2.3, “Provisions for the Handicapped,” in chapter four). An architect who had participated in the design of the Metro project since the early 1980s viewed the Metro project as a chance to reform and redesign the whole city of Athens—an opportunity, though, that entailed conflicts:

We saw the Metro as the backbone of the city and our philosophy implied that the Metro could reorganize city planning. That was our chance to rebuild Athens. I had lived abroad and I had seen how people there design and build. They have standards and criteria. Similarly, we thought that since Athens is a popular tourist Mecca, we should redesign it and make it more functional. The Metro provided the opportunity to build toilets for disabled people, elevators, ramps, etc., and to spread these facilities throughout the rest of the city. All this triggered conflicts and disagreements. Huge conflicts ... (Dimitrios Batsos, interview, May 17, 2005)

It is unclear exactly what actors were involved in these conflicts, as our sources denied us such information. What is clear, however, is that these conflicts and disagreements, as well as the delays in ratifying the first Metro contract, suspended the interactions between the Department for Research on People with Special Needs and the Metro project. As we will demonstrate below, the crucial text (formerly called “special section 4.2.3, ‘Provisions for the Handicapped’”) was ultimately omitted from the first Metro contract in 1991 and the section was replaced by a *non-obligatory* clause in the contract. Progress in the problematization of disability issues that had gained momentum in the 1980s decelerated. In particular, the initiation of large infrastructure projects such as the Metro—which lacked facilities for disabled people—indicated an initial distortion of disability issues.

In the next section we will trace the negotiations involved in making the Athens Metro accessible to the disabled, illustrating the making of strength (translation) and the undoing of agendas (treason) — the enrolling of allies and severing of associations.

### ***Distortion: How the “Other” Becomes Dispensable***

To construct a stable network, the process of defining the problem, problematization, is essential. However, the problematization consists of a mechanism that separates what is part of the network from what is not (Callon 1980, 206). We argue that the process of problematization is accompanied by the distortion of another agenda.<sup>9</sup> By distorting the

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<sup>9</sup> Our aim in choosing our vocabulary is to shine light on an antagonistic struggle and on the making of powerlessness. Problematizing involves defining a problem, making an agenda. Problematizing also means clarifying and constructing by means of making a problem. “Mis-problematize,” “counter-problematize,” or “anti-problematize” could be relevant choices, but these awkward words do not lend themselves to thinking about antagonism as an agential, creative, even enacting, activity. The word “distort” makes it possible to speak of an act of destructive creation. We take it to mean to “give a misleading or false account or impression of; change the form of (an electrical signal or sound wave) during transmission, amplification, or other processing.” (New Oxford American Dictionary, 3<sup>rd</sup> edition). There is an active, creative element to distorting, as it involves

problem of the Other, the problematization becomes more powerful. However, in classical ANT analyses the process of othering has no systematic theoretical foothold in the study of heroic and performative construction processes: there are no words to describe the construction of a losing agenda. Describing the distortion of the agenda of the Other is the first step of our analysis. The process of distortion makes the Other's agenda seem uneconomical, illogical, untimely, or unsound. For every constructed 'obligatory passage point' there can be a number of 'points of irrelevance' that thwart actors in their desire to define a problem.

Making disability organizations irrelevant involved a change in stance on the part of the Greek government, which marginalized disability organizations and their representatives in the government. This was accomplished through a variety of measures that combined to medicalize, individualize, and depoliticize disability. Such changes obfuscated the agenda of the disability organizations, and made it seem politically untimely, illogical, and irrelevant—the agenda of the disability movement became *distorted*.

In the early 1990s, the Greek government changed from a socialist to a conservative administration, which signified a considerable change in state policies regarding disability issues. Kouroublis (2000)<sup>10</sup> argues that the conservative government attempted both to reduce the influence of disability organizations and their advocates and to accentuate the philanthropic role of the state and charity organizations in the care of the disabled (p. 390). One measure of the new government was to suspend the institutionalized cooperation between disability organizations and the central administration that the former government had established. This suspension disrupted cooperation between the government and the ESAEA. According to Kouroublis, the new government attempted to depoliticize and redirect disability issues toward the charity approach by taking social and political control of disability organizations.<sup>11</sup> Similarly, Mouzelis and Pagoulatos (2005) argue that in early 1990s, when social and non-governmental organizations claimed participation in the wider political scene of Greece, political parties focused on "pursuing colonization of such non-governmental, civic organizations" (p. 94).

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agency. Of course, a distortion could also be a problematization depending on the story's point of departure. However, constructing stories is a political activity, so one must choose one's starting point wisely.

<sup>10</sup> Kouroublis is a former chair of the Greek National Confederation of Disabled People (ESAEA), a former General Secretary of the Ministry of Health and Welfare, and a former socialist member of the Greek Parliament.

<sup>11</sup> Panayiotis Kouroublis, interview December 22, 2004.

There are also indications that the government attempted to implement methods of institutionalization that would affect disabled people. Specifically, the conservative government attempted to create a center for disabled people that would support people with all kinds of disabilities in the same place. Tsioubos, who in the 1980s was an employee of the Department for Research on People with Special Needs, explains that the conservatives were opposed to the dynamics and expectations of the disability movement:

Even if there were good intentions behind this idea, the objection lies in the philosophy. The measures that the conservative government designed and never implemented focused on confinement and institutionalization. They aimed to provide disabled people with all the necessary conditions of survival, support, and help but outside the social framework. (Georgios Tsioubos, interview, November 18, 2003)

The conflict, according to Tsioubos, entailed replacing ESAEA's participation in political processes with a politics of confined caretaking. As a further example of this shift, on November 30, 1995, the Secretary of the New Democracy (a conservative party) gave a speech about quality of life issues during a conference the Party organized for disabled people. The Secretary claimed that the proposals made were essentially identical to the disability policies that New Democracy had presented in previous election campaigns and during the 1990–1993 period (personal communication with a New Democracy employee, November 10, 2005). This speech indicated that New Democracy viewed disabled people as patients to be accommodated by the creation of rehabilitation centers, accessible sidewalks, and houses equipped with accessibility technology (New Democracy 1995).

Two documents issued by the Ministry of the Interior, Public Administration, and Decentralization (1992 and 1993) illustrate how the public administration viewed disability issues. Both documents specified that all information that people with special needs required from public authorities must be submitted immediately to them by public officers, without requiring that disabled people wait in queues or move independently within buildings; instead, employees of each authority should help them. These measures also reflect a medical model since they imply that disabled people should remain passive receivers of help and sympathy. There are no indications that New Democracy had previously formulated disability policies that promoted the inclusion of disabled people in sociotechnical processes or made concrete proposals for implementing accessibility measures in the built environment. On the

contrary, the Greek government attempted to pacify the disability movement and dispense with its demands, knowledge and earlier engagement.

By treating disability as a medical condition and disabled people as patients, the new government medicalized the agenda of the disability movement. That is, it suspended the problematization of accessibility awareness in public administration and undermined the gains of the Greek disability movement. At the same time, the government ratified measures that institutionalized people (i.e. focused on rehabilitating bodily impairments, stipulated allowance policies, and strengthened charity organizations). Yet again, disabled people were constructed as the other in Greek society, unable to participate in sociopolitical configurations (Galis 2006).

In summary, the work of creating a new governmental problematization distorted the agenda of the Greek disability movement. The process of translation was accompanied by a betrayal that involved the production of political weakness and the distortion of another agenda. The other was made dispensable or irrelevant. The distortion separated those who are disabled from the rest of the sociotechnical *demos*. The scene is now set for a series of trials of estrangement that challenged the strength of ensuing governmental problematizations (e.g., the medicalization of disability issues) and the distortion of disability actors (i.e., making the disability movement irrelevant).

### ***Devices of Estrangement, or How “Enemies” are Locked Out***

The second step in our vocabulary of treason is *estrangement*. With this concept we wish to highlight the opposite side of Callon’s concept of *intressement* – the actions that “impose and stabilize the other actors it defines through its problematization” (Callon 1999, 71). Here the actions are meant to confound other actors. This concept highlights a divergence of trajectories, the distorted actors being phased out and losing power. To estrange means to disassociate from others – to create a chain of differences. Estrangement devices impose and stabilize the distortion of a problematization. A successful estrangement falsifies a problematization, substantiates a distortion, and continues the severance of associations. As Callon expresses it, “[t]o interest other actors is to build devices which can be placed between them and all other entities who want to define their identities otherwise” (Callon 1999, 71–72).

In this narrative, we are interested in these devices not because they create stability and order, but rather because they impose power asymmetries and estrangement. In this case, the initial distortions of the disability agenda facilitated particular changes in both the organizational structure and political processes of governmental and non-governmental organizations. They also activated rhetorical devices, such as the construction of concerned groups as “careless” or the accessibility provisions as “uneconomic.”

A concrete example of an estrangement device was the weakening of the Department for Research on People with Special Needs during the same period. Leventi, who was Director of the Department when this study was being conducted, noted that when the new government came to power in 1991 the new General Secretary of the Ministry of Environment, Physical Planning, and Public Works tried to demote the Department:

Before New Democracy won the elections, the Department had three rooms on this floor of the Ministry. After the elections, I ended up in the hospital for twenty days. During this period, the new General Secretary decided that we did not need three rooms and he moved the Department into this tiny room. At the same time, my colleague in the Department were transferred to the island of Corfu, while my secretary was fired. (Argiro Leventi, interview, March 16, 2005)

Sotiropoulos (1995) explains that democracy in Greece has been associated with a clientelistic domination of the public administration, which means that political changes in government entail administrative changes in the public sector. This particular regime change in the early 1990s implied a negative and estranging impact on the continuity of disability and other social policies in the public administration.

Another example of an estrangement device can be identified in the parliamentary debate on the ratification of Bill 1955/91 (Official Government Gazette 1991, 1582) concerning the Attiko Metro<sup>12</sup> board (the company supervising Metro construction). Some of the speakers expressed concern about the lack of social representation in the construction of the Metro and

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<sup>12</sup> Attiko Metro was established by Law 1955/1991 as a legal entity of private law in the form of a "societe anonyme", the Greek State being its sole shareholder. Attiko Metro supervised the design, construction and implementation of the Metro. Further to the establishment of the company and the approval of its statutes, Law 1955/91 also ratified the contract concluded between the Greek State and Olympic Metro Consortium for the Base Project of the Athens Metro Lines 2 and 3.

on the board of Attiko Metro.<sup>13</sup> However, the government was not keen to encourage or include specific social groups, such as disability organizations, in the development of the project or the organizational structure of Attiko Metro. As New Democracy floor leader Dimitrios Sioufas argued in his speech in Parliament during the debate:

Our experience has shown that when lawmakers have attempted to provide social groups and public organizations with the opportunity to participate in various bodies, such as Attiko Metro, they have been very careless. Careless in the sense that their participation has developed into meaningless membership, that is, the social representatives agree with the opinion of the majority, or the opinion of the general secretary, or the chair of the organization, without significantly contributing to the process [...] Thus, in a large organization such as Attiko Metro it would be very useful if we did not have this kind of participation.<sup>14</sup>

Sioufas argued against public participation in the Metro planning by referring to the earlier claimed failure of such social groups to contribute when participating in large organizations.<sup>15</sup> One could argue that the government was aiming for a narrow organizational structure of Attiko Metro that would focus on project development rather than on satisfying the interests of public organizations and special interest groups.<sup>16</sup> The concern of the Greek government implied that the “carelessness” of these groups would slow the development of the Metro. At the same time, and given severe macroeconomic imbalances, the government wanted to question the whole basis of previous policies, cooperation and social participation, and to dismantle, weaken or restructure the distribution of coalitions that sustained them (Lyberaki and Tsakalotos, 2002).

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<sup>13</sup> Based on the suggestions made by Dimitrios Beis (PASOK) and Anastasios Peponis (PASOK) regarding the involvement of social groups, technical institutions, and local governments in the Metro project to the Minister of Environment, Physical Planning, and Public Works, Manos in the parliamentary debate (Greek Parliament 1992, 244–245).

<sup>14</sup> Dimitrios Sioufas’ (New Democracy) speech in the debate in June 1991 (Greek Parliament 1992, 247).

<sup>15</sup> Kioukias (1997) notes, for example, that in the case of the celebrated “councils of social control” the PASOK government introduced a number of public corporations during the 1981–1985 period; worker participation turned out to be only nominal since, among other things, union members were underrepresented, the councils’ opinions were often ignored, and their rights were further restricted by law.

<sup>16</sup> Based on the answer by the Minister of Environment, Physical Planning and Public Works (Stefanos Manos) to Peponis’ and Beis’ proposal (see footnote 10). He argued against any kind of social participation in the course of the Metro work during the debate in June 1991 (Greek Parliament 1992: 247).

After two weeks of debate, the Greek Parliament ratified the first Metro contract on June 25, 1991 without including mandatory accessibility provisions.<sup>17</sup> The parliamentary debate on the first Metro contract became a device by which accessibility issues were estranged from the Metro project, disability organizations were ‘locked out,’ and power asymmetries arose between the disability movement and the government. By construing social groups and public organizations as careless, and dissociating the Metro construction from disability groups and their interests, the accessibility agenda was undermined. This ultimately reduced the active involvement of disability actors in public administration.

Economic and aesthetic considerations were further estrangement devices used to disassociate accessibility from the political process of constructing the Metro. As discussed earlier, the Planning Manual for the procurement for the Metro had previously included a special section on accessibility provisions (section 4.2.3) that specified technical recommendations for the accommodation of disabled people in the Metro network. According to the Attiko Metro architect Athos Dallas, this section was omitted from the final procurement process in 1991 (Athos Dallas, interview, March 15, 2005). A main reason given for this decision was financial. Several experts, consultants, and managers at the responsible ministry were fairly hostile to the idea of adapting the Metro to accessibility standards, since accessibility provisions could raise the cost dramatically and cause aesthetic disharmony (Interviews with Batsos May 17, 2005; and Tsioubos November 18, 2003).

This view is also supported by Tsioubos. He argues that the Greek government did not apply section 4.2.3 of the Manual in the final procurement because disabled people were not a significant number of potential Metro users, so it was regarded as too costly to include accessibility features (Georgios Tsioubos, interview, November 18, 2003).<sup>18</sup> Even the Planning Manual acknowledged that the tenderers could not include provisions for disabled people that would increase the total cost of the proposal on which their tender would be based (EYDE METRO 1986, 17). Since the government aimed for a low-budget Metro, costs would be reduced. The distorted and weakened disability agenda allowed estrangement devices, such as the issue of cost, to exclude accessibility from the Metro. Economic arguments became solid evidence used to undermine the possibility of disability accommodations.

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<sup>17</sup> In the form of Law 1955/91 (Official Government Gazette 1991)

<sup>18</sup> Cf. Argiro Leventi, interview March 16, 2005.

The distortion of the disability agenda allowed for devices of estrangement to disassociate the disability movement from political participation in various ways: closing a governmental department; attributing ‘carelessness’ to social groups involved in governmental work; and considering cost versus number of users in the design of infrastructural projects. The onslaught on the political participation of the disability movement was formidable and helped set up the disability movement to be rejected. The successful *intressement* of actors opposing the demands of the disability movement interrupted all potential associations between disability provisions and the design of the Metro and constructed a system of alliances for rejecting an accessible Metro system (cf. Callon 1986a, 211).

### ***How to Confound and Disorganize: Rejection?***

The third step according to our vocabulary of treason is *rejection*. When estrangement is successful, a chain of difference is completed and the successful severing of an association becomes a rejection. Here the estrangement devices are tested and established. As in Callon’s case of fishermen and scallops, the question is whether the estrangement devices are successful. It is a matter of transforming a series of obstructions into an insurmountable barrier. All knowledge development involves contests over alliance partnerships, some being added while others are removed (Young et al 2010, 1209). Has the disability movement been closed off or rejected?

The rejection of accessibility provisions was imprinted in the parliamentary debate about the first Metro contract. When reading through the records of the debate it is clear that the issue of accessibility was not part of the political agenda. We maintain that three factors contributed to the rejection of accessibility issues. First, there was a considerable lack of technical knowledge regarding accessibility provisions. The work and status of the Department for Research on People with Special Needs was annihilated, thus closing the only public institution that dealt with research on disability and accessibility standards. Second, disability organizations were made relatively powerless (the parliament voted against civic participation in major technical works) and their issues were estranged as illegitimate and non-urgent political questions (this was mirrored on the first Metro contract, which did not include any obligatory provisions for disabled people). Finally, the issue of accessibility was not included in the debate because of the perceived cost increases it would bring about. All of these constitute distinct evidence that accessibility questions were still not of significance for politicians involved in ratifying the Metro contract.

### ***Reviving a Problematization: Fighting Irrelevance through Dissidence and Controversy***

The disability movement did not quietly accept that their definition was irrelevant; instead, it created a sociotechnical controversy about the design of the Metro. In conceptual terms, it became dissident and attempted to revitalize its problematization of the Athens Metro by renegotiating the agenda and repositioning accessibility as an obligatory passage point. Though still weak in the context of the political establishment, the disability movement changed their strategy and attempted to implement a number of alternative methods for enrolling Attiko Metro and questioning the agenda of accessibility opponents. In effect, they attempted to make their problematization dominant. At this point the struggle was not about making the disability movement into an obligatory passage point, nor of securing political participation in the board of the construction company. Rather, it was a struggle for an accessible metro, which involved distorting the representativity of the views and decisions of accessibility opponents. The disability movement shifted strategy and problematization through dissidence and controversy (cf. Callon 1986a, 219). As we will demonstrate, however, the re-problematization of the accessibility agenda also meant the disruption of the active involvement of disabled people in the work.

Disability organizations (and their major representative ESAEA) protested strongly both against the prospect of constructing a cheap and inaccessible Metro and against the increasing marginalization of disability issues (Athanasios Viglas, chair of the Greek Paraplegics Association, interview, July 4, 2004). According to Attiko Metro employees, disability organizations were not influential enough in terms of political power, critical mass and organizational skills to intervene in the course of the Metro project, and they also lacked sufficient knowledge to contribute to the technologically complex project (interviews with Vasileiadis November 12, 2003; Dallas, Sotiropoulos, and other Attiko Metro employees, March 15, 2005). On the other hand, disability organizations viewed the procurement for the Metro without stipulations for accessibility facilities as a significant barrier to configuring an accessible built environment. Consequently, they began exerting pressure on the government. A former ESAEA board member recalls the ensuing protests:

I remember that the whole Greek disability movement got involved. ESAEA, the associations of mobility impairments, the Greek Paraplegics Association pressured the Ministry of Environment, Physical Planning, and Public Works to approve and grant the necessary funds. (Dionysios Maurokefalos, interview, September 9, 2004)

On December 2, 1991, the contractor for the Metro project, Olympic Metro Consortium,<sup>19</sup> submitted the report *Facilities for Disabled Persons* to the supervisor of the project, Attiko Metro, which included a number of suggestions regarding the accommodation of disabled people in the Metro as defined by the first Metro contract.<sup>20</sup> This document did not, however, include cost estimates. Nevertheless, a series of protests, complaints, and presentations organized by disability organizations attempted to cancel the Metro contract and to pressure the government into including accessibility in the Metro project specifications (Panayiotis Kouroubliis, interview, December 22, 2004).

As the construction of the Metro project accelerated, disability organizations exerted additional pressure to re-problematize accessibility. In January 1993, ESAEA's chair Kouroubliis invited journalists, government members, all political parties, and social unions to attend a special press conference at the Journalists' Union of the Athens Daily Newspapers. One subject to be discussed was that of "accessibility issues in the construction of the Metro, which revealed the government's great deception" (ESAEA 1993a).

According to Kouroubliis, the Minister of Environment, Physical Planning, and Public Works did not accept ESAEA's invitation for a dialogue on accessibility in the Metro. This constituted a serious break in the established interaction between disability organizations and the government (Panayiotis Kouroubliis, interview, December 22, 2004). Ten days after the press conference, ESAEA issued a press release entitled *An Age of Social Destabilization*. The first paragraph of this release criticized the Greek government for not including any specifications for accessibility provisions in the existing Metro contract:

The pompous pre-election and post-election declarations about the present government's professed sensitivity have been proven to be a most weak and dubious argument when the organizations of disabled people, and the whole of society, are shocked to learn that in the project ushering us into the third millennium, *the Athens Metro*, which should reflect the social features of our society, *no provision has been made for access for non-ambulatory persons*. This fact demonstrates the extent of social degeneration and the violation of elementary social rights of human dignity ... (ESAEA 1993b; emphasis original)

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<sup>19</sup> The Olympic Metro Consortium, a group of 23 German, French and Greek construction companies, was awarded a turnkey contract for the construction of Athens Metro in 1991. The Olympic Metro Consortium was under the supervision of Attiko Metro.

<sup>20</sup> The first Metro contract obliged the project contractor to submit non-obligatory proposals concerning the accommodation of people with special needs (Official Government Gazette 1991, 1600).

By shifting strategies, creating controversy, and attempting a re-problematization, the Greek disability movement attempted to regain a foothold in reality, to fight the devices of estrangement and reject the definition of their agenda as irrelevant.

### ***A New Problematization and the Disruption of “Enemies”: Bittersweet Success***

The final term in the vocabulary of treason is *disruption*.<sup>21</sup> Through the stages of treason the disrupted actors are made into invisible Others by those few actors who succeed in mobilizing their agendas and making them dominant and representative. Rather than constructing chains of translation, here we witness the construction of a chain of differences that becomes a destabilization. The excluded actors fail to become part of construction story—they become silent actors. The powerful actors mobilize and stabilize technoscientific controversies, becoming the only representatives; at the same time, however, this can constitute the progressive inactivation of the weak actors: a distortion of a problematization, an estrangement of a social group, a rejection of an agenda, and a disruption of power.

On February 10, 1993, a PASOK member of Parliament, E. Konstandinidis, denounced the lack of obligatory specifications for including accessibility provisions in the Metro by submitting an interpellation<sup>22</sup> to the government (Greek Parliament 1993, 1). Konstandinidis referred to ESAEA’s press conference and submitted ESAEA’s press release. On February 16, the president of the Parliament forwarded ESAEA’s press release to the government and to Attiko Metro. The aforementioned re-problematization of the accessibility issue by the disability movement (through its protests and campaign), and/or political opportunism on the part of PASOK, put considerable pressure on the government, which immediately mobilized the relevant public authorities. On February 2, 1993, the Ministry of Environment, Physical Planning, and Public Works sent a letter to Attiko Metro and required it “to carefully examine the document attached [i.e. ESAEA’s press release] and proceed with required action and

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<sup>21</sup> Again we are faced with choosing to do things with words, to make meaning where before there was emptiness. Here we mirror mobilization with *disruption*, i.e., “to break apart; to throw into disorder; to interrupt the normal course or unity of.” (<http://www.merriam-webster.com>). This word evokes the agential destruction of the orderly, the stable, the stabilized; the creation of chaos, of disunity. The pointillization of the network is countered (Callon 1986b). The black box is opened; it is disrupted.

<sup>22</sup> In the Greek parliament, each individual Member of Parliament has the right to formally submit questions to a member of government. The respective minister or secretary is then required to respond and to justify government decision.

respond by memo within 3 days” (Ministry of Environment, Physical Planning, and Public Works 1993).

The response was immediate: On the same day and on behalf of the Greek government, Attiko Metro initiated the process described by clause 31.2.3.5 in the first Metro contract. Although the clause had been included in the contract, it would not be obligatory unless Attiko Metro activated it by an instruction. The so-called “Instruction 13” was the means to enforce clause 31.2.3.5. Specifically, Attiko Metro activated Instruction 13, which meant that the contractor Olympic Metro Consortium was now *obliged* to “undertake a program to design, construct, and modify the stations and vehicles in order to facilitate access to and use of the project by persons with special needs” (Attiko Metro 1993, 1).

Attiko Metro’s imposition of Instruction 13 was a significant milestone for the development of the Metro work and its adaptation to accessibility provisions. However, there was still a long way to go before achieving the desired outcome of full accessibility. None of the documents included cost estimates or indicated when these modifications would be funded. Significantly, “because the instruction was not incorporated into the initial contract, an amendment of the contract was needed in order for the aforementioned additional work to be included in the scope and cost of the Metro project” (Athos Dallas - Attiko Metro architect, interview March 15, 2005). Instruction 13 triggered extended negotiations between the Metro supervisor Attiko Metro and the contractor Olympic Metro Consortium. Nevertheless, these interactions were still restricted to the internal contacts between the cooperating companies and only between those engineers involved with constructing the Metro (Athos Dallas, interview, March 15, 2005).

The symbolism and results of these negotiations are striking. The (re)problematization of accessibility through the work of the Department for Research on People with Special Needs (e.g., the Planning Manual for the procurement for the Metro), the political struggle of the disability movement to interest and enroll various social actors (e.g., ESAEA’s press conference and demonstration), and the eventual mobilization of the disability agenda progressively became irrelevant. Instead, a handful of experts and engineers discussed and designed accessibility provisions in secluded architects’ offices and corporate buildings. These discussions effectively created various populations of silent disabled people, all

represented by a few specialists; these diverse populations have been disrupted by not being included or heard (cf. Callon 1986a, 218).

Concretely, and to the chagrin of the disability movement, the challenge of accessibility became an issue for experts and managers working on the Metro project. There was also a certain amount of mistrust that hindered interactions between disability organizations and Attiko Metro employees, who were skeptical about cooperation with them. According to one Attiko Metro architect, architects working with the Metro perceived representatives of the disability organizations not as potential users of the Metro system, but as “incompetent trade unionists with unreal claims and poor technical backgrounds.” The architects also felt that the “architectural culture and knowledge of Attiko Metro’s employees were enough for an effective analysis of data and an application of a functional structure” (Attiko Metro architect who wishes to remain anonymous, interview March 18, 2005). Thus, while the Metro construction project had entered a new phase of accessibility, the disability movement was denied access to technopolitical participation—the process was confined to experts and managers.

The confined nature of this process between Attiko Metro and Olympic Metro Consortium not only made it invisible to disability organizations and their allies, but also made disability organizations invisible to and excluded from the design of the Metro. This kind of seclusion was to trigger more controversies and dissidence. These conflicts expressed the demands of disability advocates for a revision of the design and construction of the Metro. There would be no new accessibility provisions until an amendment to the contract was adopted that specifically included Instruction 13. The process that would be followed for integrating these modifications did not entail the participation of disability organizations, and the Instruction did not guarantee the implementation of accessibility provisions. A group consisting of engineers, architects, and consultants of Attiko Metro and the Olympic Metro Consortium were to negotiate the necessity and functionality of accessibility facilities and decide whether or not these technical details should be implemented in the construction.

This constituted the perfect translation/treason coupling: avant-garde, authoritative public administrators—representatives of social concerns in the secluded technoscientific policy-making “room” (see Webster 2007)—expelled a social movement from the configuration of a technical system, with the assurance that the experts were adequately dealing with

accessibility issues. Managers and engineers involved in the Metro project considered disability organizations politically weak and incompetent in terms of technical knowledge and therefore did not involve disability organizations in the process. They instead emphasized the value of scientific knowledge and expertise (Attiko Metro architects, interview, March 18, 2005). If a social group is perceived as politically powerless, then it has no chance of influencing confined technoscientific processes (Callon, 2003, 55): its authority, power and demands are *disrupted*.

The involvement of disability organizations in the construction of the Athens Metro system was never formally stipulated by the Greek state while the accessibility agenda shifted from a non-issue to an actual plan. Recurrent changes in relevant ministerial positions disrupted continuity in the approach to disability issues and subverted the democratic participation of disabled people in the sociotechnical stratum. In that sense, power was constantly transformed, shifting between different entities and, extending politics and pluralism to the enactment of a technoscientific reality. Politics in this case refers to how disabled people influenced the ontology of disability by participating in the configuration of urban environmental design as well as to how disability organizations were subverted from the design and construction of the Metro.<sup>23</sup>

## Conclusion

This paper has two goals. The first is to present a vocabulary for describing processes that deconstruct power and agency. By highlighting performances that excluded disability organizations, we demonstrate not only how power/knowledge is made, but also how it is disrupted. We propose a toolkit of conceptual antonyms to complement Callon's vocabulary of translation, and thus systematically acknowledge the parallel processes of translation/treason. *We introduce the concepts of distortion, estrangement, rejection, and disruption as counterparts for problematization, intressement, mobilization, and enrollment.*

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<sup>23</sup> As of this writing, a chain of parallel and overlapping translations/treasons ultimately led to the construction of (parts of) two accessible Metro lines that were inaugurated in 2000. Does this imply that the construction of the Athens Metro was a success story for the disability movement, and that disabled people eventually managed to establish their participation in the configuration of public infrastructure as a political praxis? That is, has the participation of the disability movement become an integral and naturalized ritual facilitated by the Greek bureaucracy? The answer is no; the issue of accessibility went through a process of shifting obligatory passage points and points of irrelevance where power and powerlessness coexisted in a parallel, but not mutually beneficial, relationship.

Existing research has emphasized only one side of the technoscientific power game. STS analysis has effectively scrutinized the construction of scientific authority, technological success, political power, and dominant innovation, and has considered the shaping of significant social resistance in technoscientific controversies. However, it has overlooked the deformation of influence and the shaping of powerlessness. This article proposes a theoretical vocabulary that draws attention to the questions of how and why certain actors in technoscientific controversies continually find themselves receding from, or being pushed out of, the limelight and back into the obscure shadows of the social, professional, scientific, or organizational structures from which they emerged (cf. McGrath 2002).

Second, we demonstrate how the negotiations concerning accessibility in the construction of the Athens Metro embedded two parallel and conflicting movements. On the one hand, the Greek disability movement strove to problematize the construction project from a disability perspective and to participate in configuring the Metro design. On the other hand, the Greek government and engineers involved in the Metro construction attempted to subvert the disability agenda and exclude disability organizations from the design of the project. Each movement represents a different enactment of disability in everyday life, policy spaces, and infrastructure, and among disabled people, engineers, and politicians.

These two goals have been our contribution to the “pluriverse” of ontological politics, but our vocabulary also implies epistemological politics. Our intentions here are both to strengthen the traditional ANT vocabulary in an attempt to counteract the theoretical reification and enforcement of stiff theoretical categories, and to explore another route to countering the specter of “apoliticism” and “agnosticism” in ANT.

## Sources

Attiko Metro SA, 1993. Instruction no. 13: Athens metro—Lines Nos. 2 and 3. Contract 8565000 SAE 065.

ESAEA—Greek National Confederation of Disabled People, 1993a. Invitation to Press Conference. Correspondence no. 24.

ESAEA—Greek National Confederation of Disabled People, 1993b. An age of Social Destabilization. Press Release No. 33.

- EYDE METRO, 1986. 9. Planning Manual. Special Service of Public Works—METRO (S.S.P.W.M.). Code no. of project: 8565000 SAE 065. Name of project: Athens Metro. Section of the Project: Line 2: Sepolia–Dafni, Line 3: Keramikos–Y. ETH. A.
- Greek Parliament, 1993. Interpellation of Member of Parliament, El. Konstandinidis on the Metro issue. Registration no. 3096. To Ministries of Environment, Physical Planning, and Public Works, Health and Welfare, Labor and Ministry for the Prime Minister.
- Greek Parliament, 1992. Parliamentary records, Division of summer holidays 1991 and Plenum. In Volume 10, Sessions June 4–July 18, 1991.
- Ministry of Environment, Physical Planning, and Public Works, 1993. Letter to Attiko Metro concerning ESAEA’s press release (January 28, 1993). Correspondence no. 2596. General Secretariat of Public Works—Bureau of Parliamentary Control.
- Ministry of the Interior, Public Administration & Decentralization, 1992. Accommodation of People with Special Needs in the Public Sector. Register no. DIADP/A6/27299
- Ministry of the Interior, Public Administration & Decentralization, 1993. Accommodation of People with Special Needs in the Public Sector. Register no. DIADP/A6/7361.
- Official Government Gazette, 1991. Law 1955, Vol. 112. Establishment of Company with the name ATTIKO METRO SA.
- New Democracy, 1995. Speech by Secretary for Quality of Life Fani Palli-Petralia during New Democracy’s conference on people with special needs.

## References

- Callon, M., and V. Rabeharisoa. 2003. Research “in the wild” and the shaping of new social identities. *Technology in Society* 25(2):193–204.
- Callon, M. and V. Rabeharisoa. 2008. The growing engagement of emergent concerned groups in political and economic life. *Science, Technology and Human Values* 33(2):230–261.
- Callon, M. 1980. Struggles and negotiations to define what is problematic and what is not: The socio-logic of translation. In K.D. Knorr (Ed.), *The Social Process of Scientific Investigation*. Dordrecht, Netherlands: D. Reidel.
- Callon, M. 1986a. Some elements of a sociology of translation: Domestication of the scallops and the fishermen of St Brieuc Bay. In J. Law (Ed.), *Power, Action and Belief: A New Sociology of Knowledge*. London: Routledge.
- Callon, M. 1986b. The sociology of an actor network: The case of the electric vehicle. In M. Callon, J. Law, and A. Rip (Eds.), *Mapping the Dynamics of Science and Technology: Sociology of Science in the Real World*. London: Macmillan.

- Callon, M. 1999. Some elements of a sociology of translation: Domestication of the scallops and the fishermen of St Brieuc Bay. In M. Biagioli (Ed.), *The Science Studies Reader*. New York: Routledge.
- Callon M. 2003. "The increasing involvement of concerned groups in R&D policies: what lessons for public powers?" In *Science and Innovation, Rethinking the Rationales for Funding and Governance*. Edited by Geuna A., Salter A.J., & Steinmueller W.E. Cheltenham UK: Edward Elgar
- Callon, M. 2007. What does it mean to say that economics is performative? In D. MacKenzie, F. Muniesa, and L. Siu (Eds.), *Do Economists Make Markets? On the Performativity of Economics*. Princeton, NJ: Princeton University Press.
- Callon, M., and J. Law. 1995. Agency and the hybrid collectif. *South Atlantic Quarterly* 94(2):481–507.
- De Vries, G. 2007. What is political in sub-politics? How Aristotle might help STS. *Social Studies of Science* 37(5):781–809.
- Feenberg, A. 2003. Modernity theory and technology studies: Reflections on bridging the gap. In T.J. Misa, P. Brey, and A. Feenberg (Eds.), *Modernity and Technology*. Cambridge, MA: MIT Press.
- Gad, C., and C.B. Jensen. 2010. On the consequences of post-ANT. *Science, Technology, & Human Values* 35(1):55–80.
- Galis, V. 2006. *From Shrieks to Technical Reports: Technology, Disability and Political Processes in Building Athens Metro*. Ph.D. dissertation. Linköping Studies in Arts and Science, no. 374.
- Galis, V. and A. Hansson 2012. "Partisan Scholarship in Technoscientific Controversies: Reflections on Research Experience." *Science as Culture*. *Science as Culture*. 21:335-364.
- Gyberg, P., and F. Lee. 2009. The construction of facts: Preconditions for meaning in teaching energy in Swedish classrooms. *International Journal of Science Education* 32(9):1173–1189.
- Kioukias, D. 1997. Interest representation and modernization policies in Greece: Lessons learned from the study of labor and farmers. *Journal of Modern Greek Studies* 15(2):303–324.
- Kouroublis, P. 2000. Το Δικαίωμα στην Διαφορά: Οι Επιδράσεις των Κοινωνικών Προκαταλήψεων και των θεσμικών Παρεμβάσεων στη Ζωή των Ατόμων με Ειδικές Ανάγκες από την Αρχαιότητα μέχρι Σήμερα. [The Right to Difference: The Effects of Social Prejudice and Institutional Intervention on the Life of People with Special Needs]. Athens: Ant. N. Sakkoulas Publishers (in Greek).
- Helgesson, C.-F., and H. Kjellberg. 2005. Macro-actors and the sounds of the silenced. In B. Czarniawska and T. Hernes (Eds.), *Actor-Network Theory and Organizing*. Malmö, Sweden: Liber.
- Latour, B. 2007. Turning around politics: A note on Gerard de Vries' paper. *Social Studies of Science* 37(5):811.
- Law J. 1999. Traduction-Trahison: Notes on ANT. Available at: <http://www.lancs.ac.uk/fass/sociology/papers/law-traduction-trahison.pdf> (accessed May 2, 2005).
- Law, J., and J. Urry. 2004. Enacting the social. *Economy and Society* 33(3):390–410.
- Lee, F. 2005. Material meanings: How materiality, discourse and subjectivities are co-produced. Presented at *Kulturstudier i Sverige: första nationella forskarkonferensen*. Norrköping, Sweden.
- Lee, F. 2009. *Letters & Bytes: Sociotechnical Studies of Distance Education*. Linköping, Sweden: LiU Press.

- Lee, F., and M. Hultman. 2006. Why not actor-network theory AND discourse theory? A sketch of how actor-network theory (AND) discourse theory may enact the technopolitics of hydrogen society and correspondence education. Presented at *Technologies of nature-politics*. Oslo, Norway.
- Lee, F., and M. Hultman. 2007. A sociology of betrayal. Paper presented at *INTER: A European Cultural Studies Conference in Sweden (AC SIS)*. Norrköping, Sweden.
- Lee, N., and S. Brown. 1994. Otherness and the actor network: The undiscovered continent. *American Behavioral Scientist* 37(6):772–790.
- Lyberaki, A., and E. Tsakalotos. 2002. Reforming the economy without society: Social and institutional constraints to economic reform in post-1974 Greece. *New Political Economy* 7(1):93–114.
- Mcgrath, P.J. 2002. *Scientists, Business, and the State, 1890–1960*. Chapel Hill, NC: University of North Carolina Press.
- MacKenzie, D. 2007. Is economics performative? Option theory and the construction of derivatives markets. In D. MacKenzie, F. Muniesa, and L. Siu (Eds.), *Do Economists Make Markets? On the Performativity of Economics*. Princeton, NJ: Princeton University Press.
- Mol, A. 2002. *The Body Multiple: Ontology in Medical Practice*. Durham, NC: Duke University Press.
- Pagoulatos. 2005. Civil society and citizenship in postwar Greece. In F. Birtek, T. Dragona, and C. Abington (Eds.), *Citizenship and the Nation State in Greece and Turkey*. New York: Routledge.
- Restivo, S. 2011. *Red, Black and Objective: Science, Sociology and Anarchism*. Surrey, UK: Ashgate.
- Serres, M. 2007. *The Parasite*. Minneapolis, MN: University of Minnesota Press.
- Star, L.S. 1991. Distributions of power. Power, technology and the phenomenology of conventions: on being allergic to onions. In J. Law (Ed.), *A Sociology of Monsters: Essays on Power, Technology and Domination*. London: Routledge
- Sotiropoulos D.A. 1995. The remains of authoritarianism: Bureaucracy and civil society in post-authoritarian Greece. *Cahiers d'Etudes sur la Méditerranée Orientale et le monde Turco-Iranien*, no. 20|1995. Available at: <http://cemoti.revues.org/1674>
- Young, D., R. Borland, and K. Coghill. 2010. An actor-network theory analysis of policy innovation for smoke-free places: Understanding change in complex systems. *American Journal of Public Health* 100(7):1208–1217.
- Webster, A. 2007. Crossing boundaries: Social science in the policy room. *Science, Technology and Human Values* 32(4):458–478.