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# European space policy and the construction of a European collective identity

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**European space policy and the construction of a collective European identity**


by


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## CHAPTER ONE: Introduction

The central question of this thesis regards to what extent the European Space Agency (ESA) and its predecessors, the European Launcher Development Organization (ELDO) and the European Space Research Organization (ESRO), have affected the construction of a European collective identity. ELDO, ESRO and the ESA have engaged in a process of persuading European states that using space science to construct a European collective identity is in their interest. Using Martha Finnemore's and Kathryn Sikkink's model for the life cycle of a norm,[1] a constructivist analysis of European space policy history suggests that the promotion of a European approach to space activities among European states to construct a collective identity has reached a middle stage where the idea of "Europe" still evokes controversy, but where key states and institutions support and attempt to socialize the norm. Internalization of a European identity is not inevitable, however, for the presence of competing norms threatens to halt or reverse the socialization process.

A great deal of scholarship has been devoted to the impact of the European Union (EU) on collective European identity, and rightfully so. Echoing the process of nationalism, the EU attempted to use citizenship as a means to inculcate collective identity. In November, 1993, the Maastricht Treaty came into effect, officially granting the citizens of EU member states "European citizenship,"[2] which launched vigorous study whether Europeans truly saw themselves a "citizens" in the national sense (in fact, they did not[3]). Although citizenship was only one of several strategies the EU used to foster the idea of "Europe," this example

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[1] Finnemore, Martha, and Kathryn Sikkink. 1998. "International Norm Dynamics and Political Change." *International Organization*. Vol 52, No 4. pp. 887-917.
[2] Shore, Cris. 2000. *Building Europe: The Cultural Politics of European Integration*. London, England: Routledge. p. 66.
[3] Shore. 2000. p. 67.

suggests that the old ways of constructing identity may be insufficient to build the new Europe. Alternatives must be considered, and there are compelling reasons to look to the European space program.

The link between European space activities and European collective identity is worth exploring for several reasons. While it is difficult to imagine a system that is not dominated by the nation-state, it is extraordinary that, only 64 years after a world war that tore the region apart, 47%[4] of Europeans now find a common identity with millions of people they could never know. In truth, it is unlikely any single influence made this a reality, but it is logical to suppose that space science could have contributed to this end. "The importance given science as a medium for cooperation among peoples"[5] implies it could serve as an unguent for a region as diverse as Europe. History suggests that space possesses a strongly international and cooperative character. In spite of the highly competitive space race between America and the Soviet Union, in 1975, astronauts and cosmonauts docked their respective spacecraft to each other in orbit, and shook hands as they toured each other's vehicles. In Europe, space institutions have existed for nearly fifty years, and it is worth examining whether they have been ascribed any meaning in that time. Because the region has been so defined by nationalism historically, however, it will be necessary for a common identity to be *built*. This is where constructivism is a compelling theoretical approach.

Limiting the field of study to European space policy is useful in a discussion of European identity. While a complete discussion of the topic necessitates consideration of more than simply space policy, limiting the analysis as such provides for a temporally

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[4] Eurobarometer. 2004. "Eurobarometer 62: Public Opinion in the European Union." *TNS Opinion & Social*. p. 94.
[5] Frutkin, Arnold. 1965. *International Cooperation in Space*. Englewood Cliffs, NJ: Prentice-Hall. p. 10.

bounded, known quantity of material. Represented in the sample of European space states is a full spectrum of military, economic and cultural influence known to the region, and space policy has an impact on all these spheres. Furthermore, a discussion of space policy directly reflects the increasing role technology plays in foreign policy. A focus on space policy eliminates from consideration several states which participate in the EU, but not in the ESA, and vice versa. While this is somewhat damaging to generalizeability, many of the expansion countries for both the EU and the ESA have only entered the fold in the last decade, whereas cooperation in the European Economic Community (EEC) and ELDO/ESRO goes back to the 1960s (and earlier for the EEC).

Finnemore and Sikkink's model for the life cycle of a norm delineates concrete markers to measure the progress of European space science in constructing a European identity. The authors define a norm as "a standard of appropriate behavior for actors with a given identity."[6] The standard for behavior promoted by ESRO, ELDO and ESA has been the appropriateness of a European approach to space policy. European states that believe they ought to behave *qua* Europe will produce a different set of policies than states which pursue space policy purely with self-interest in mind. This behavior extends beyond the region, for a group of states which behave in the capacity of Europe will be regarded *as* Europe by the international community. For a norm to reach the point where it constrains behavior, however, it must undergo a process of increasing acceptance.

There are three stages in the life of a norm. The first stage is "norm emergence." New norms are brought forward by individuals or groups Finnemore and Sikkink refer to as

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[6] Finnemore and Sikkink. 1998. p. 891.

"norm entrepreneurs," who attempt to persuade states to adopt the norm.[7]  Increasingly,

modern institutions use expertise and information to promote new norms.[8]  These kinds of

institutions are referred to as epistemic communities, which Peter Haas defines as "a network

of professionals with recognized expertise and competence in a particular domain and an

authoritative claim to policy-relevant knowledge within that domain or issue-area."[9]

Epistemic communities played an important role in the development of the European space

program, and shall received greater mention in Chapter Two.

New norms always enter into a realm of debate, [10] where they must either supplant or

find a place beside existing norms.  The chief responsibility of norm entrepreneurs is to

persuade a "critical mass" of states to adopt the norm.[11]  This means either they have to

persuade a sufficient *proportion* of states, or persuade the most *important* states to adopt the

norm.[12]  At this "tipping point," the norm enters the second stage of its life, the "norm

cascade," during which the adoptive states, possibly assisted by the norm entrepreneurs,

begin the process of "socializing" the norm.[13]  "Socialization is the main mechanism through

which norm leaders persuade others to adhere to the norm,"[14] where "others" may refer to

other states, or the citizens of the adoptive states.  In this stage, other states may begin to

adopt the norm even in the absence of coercion.[15]

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[7] Ibid, p. 895.
[8] Ibid, p. 899.
[9] Haas, Peter.  1992.  "Introduction: Epistemic Communities and International Policy Coordination*.*"
*International Organization*.  Vol. 46, No. 1.  p. 3.
[10] Finnemore and Sikkink.  1998.  p. 897.
[11] Ibid, p. 901.
[12] Ibid.
[13] Ibid, p. 895.
[14] Ibid, p. 902.
[15] Ibid.

Progression to the third stage depends entirely on the success of the strategies adoptive states use to socialize the norm.[16] The third stage, "internalization," "occurs when the norm becomes so accepted that conformance with the norm is almost automatic."[17] The main contention of this thesis is that behavior as Europe has advanced to the second stage in the life cycle of the norm. As the norm cycle advances to internalization, it aids the construction of a collective identity. The concept of "collective identity" requires greater explanation.

To Neil Fligstein, "[c]ollective identities refer to the idea that a group of people accept a fundamental and consequential similarity that causes them to feel solidarity amongst themselves (Thernborn, 1995: ch. 12; Brubaker and Cooper 2000). 'This sense of collective identity is socially constructed, by which I mean that it emerges as the intentional or unintentional consequence of social interactions.'"[18] This is the basis for the link between European behavior and collective European identity. When European individuals *behave* as Europeans, they come to *identify* as Europeans as they have achieved a fundamental similarity and sense of solidarity through common behavior. Any level of solidarity in Europe is significant. For the last 150 years, nationalism has been a prime mover of the region.[19] A European common identity has been forced to grow from essentially nothing; coming out of World War II, a European in-group simply did not exist. The idea of "Europe" will have become legitimized when European behavior becomes so uncontroversial

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[16] Ibid, pp. 902-3.
[17] Ibid, p. 904.
[18] Fligstein, Neil. 2008. *Euroclash*. New York, NY: Oxford University Press. p. 127.
[19] Jacobs, Dirk, and Robert Maier. 1998. "European Identity: Construct, Fact and Fiction." In *A United Europe: The Quest for a Multifaceted Identity*, eds. Gastelaars, M., and A. de Ruijter. Maastricht, Germany: Shaker Publishing. p. 18.

that it is taken for granted.[20]  This does not mean European identity must become dominant over national identities to be meaningful, however.

European identity may exist even in the presence of competing identities.  An individual or group may maintain multiple collective identities, even if they are in conflict.[21]  Collective identities may be "nested" among competing identities.  "Nested" implies co-existence, but does not imply co-equivalence.  When some authors speak of collective European identity, they speak of a Europe whose citizens view themselves as Europeans *first*, and members of their nation *second*, if at all.  However, "European" does not need to become a primary identity in order to be taken for granted as an identity.  Existing evidence supports this notion.

Although national affiliation remains a primary identity for most Europeans, large segments of the population self-identify as at least partially "European."  Eurobarometer, a pollster organization funded by the European Commission, conducts public opinion surveys among the citizens of EU member states semi-annually.  Often, the organization publishes data on how closely EU members identify with Europe compared to their home nationalities.  While its methods of measurement from year to year are typically altered, consistently around half of the EU members polled identify with *both* their home country and with Europe.  2004 data revealed that across the 15 EU members of the time, 47% said they identified with their respective 'nationality and European,' 7% identified as 'European and [their respective] nationality,' and only 3% identified themselves as 'European only.'[22]  Identification between national and European identities remained remarkably uniform across
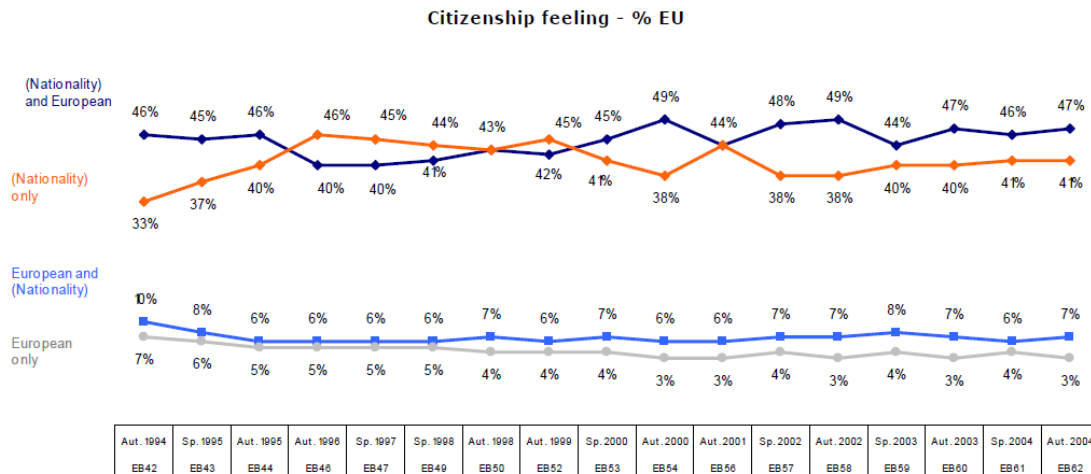
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[20] Finnemore and Sikkink.  1998.  p. 904.
[21] Ibid.
[22] Eurobarometer.  2004.  p. 94.

the span of Eurobarometer readings, meaning the sense of European identity has not grown

despite the persistent presence of transnational institutions.[23]

**FIGURE 1**

Citizenship feeling - % EU

(Nationality) and European: 46% 45% 46% 46% 45% 44% 43% 45% 45% 49% 44% 48% 49% 44% 47% 46% 47%

(Nationality) only: 33% 37% 40% 40% 40% 41% 42% 41% 38% 38% 38% 40% 40% 41% 41%

European and (Nationality): 10% 8% 6% 6% 6% 6% 7% 6% 7% 6% 6% 7% 7% 8% 7% 6% 7%

European only: 7% 6% 5% 5% 5% 5% 4% 4% 4% 3% 3% 4% 3% 4% 3% 4% 3%

| Aut.1994 | Sp.1995 | Aut.1995 | Aut.1996 | Sp.1997 | Sp.1998 | Aut.1998 | Aut.1999 | Sp.2000 | Aut.2000 | Aut.2001 | Sp.2002 | Aut.2002 | Sp.2003 | Aut.2003 | Sp.2004 | Aut.2004 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EB42 | EB43 | EB44 | EB46 | EB47 | EB49 | EB50 | EB52 | EB53 | EB54 | EB56 | EB57 | EB58 | EB59 | EB60 | EB61 | EB62 |

Source: Eurobarometer. 2004. p. 94.

A demographic breakdown of where the numbers are coming from struggles to find

answers (Figure 2). As Neil Fligstein corroborates in his own analysis of the same data, one

of the strongest predictors of identification with Europe is age.[24] One might assume that

these young people would carry their favor for European identity into the next age bracket.

However, he found in a comparison between 1992 and 2004 data that there was only a slight

cumulative effect as the younger European-identifiers became older. While there was a

statistically significant increase in the oldest age category between the two time frames, the

increase was small in proportion to the number of aged people who had earlier been Europe-

identifiers.[25] There are several possible reasons for this, such as a change in political

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[23] Fligstein. 2008. p. 125.
[24] Ibid, p. 141.
[25] Ibid.

affiliation as they aged, a bad streak in the regional or local economies, poor leadership in the
EU, and so on.  The data cannot support any of these hypotheses, however.


**FIGURE 2**

| | (NATIONALITY) only | (NATIONALITY) and European |
|---|---|---|
| **EU25** | 41% | 47% |
| **Age** | | |
| 15-24 | 35% | 53% |
| 25-39 | 38% | 52% |
| 40-54 | 40% | 49% |
| 55 + | 56% | 36% |
| **Education (End of)** | | |
| 15 | 62% | 31% |
| 16-19 | 46% | 45% |
| 20+ | 33% | 56% |
| Still Studying | 29% | 58% |
| **Left-right scale** | | |
| (1-4)  Left | 33% | 51% |
| (5-6)  Centre | 43% | 48% |
| (7-10) Right | 45% | 46% |
| **Place of birth** | | |
| Surveyed country | 42% | 48% |
| EU | 25% | 33% |
| Europe outside EU | 29% | 33% |
| Outside Europe | 30% | 39% |
| **Opinion Leadership** | | |
| ++ | 33% | 51% |
| + | 33% | 54% |
| - | 43% | 47% |
| -- | 58% | 32% |
| **Q22 - EU Knowledge** | | |
| 1-3 | 54% | 36% |
| 4-7 | 34% | 54% |
| 8-10 | 31% | 48% |

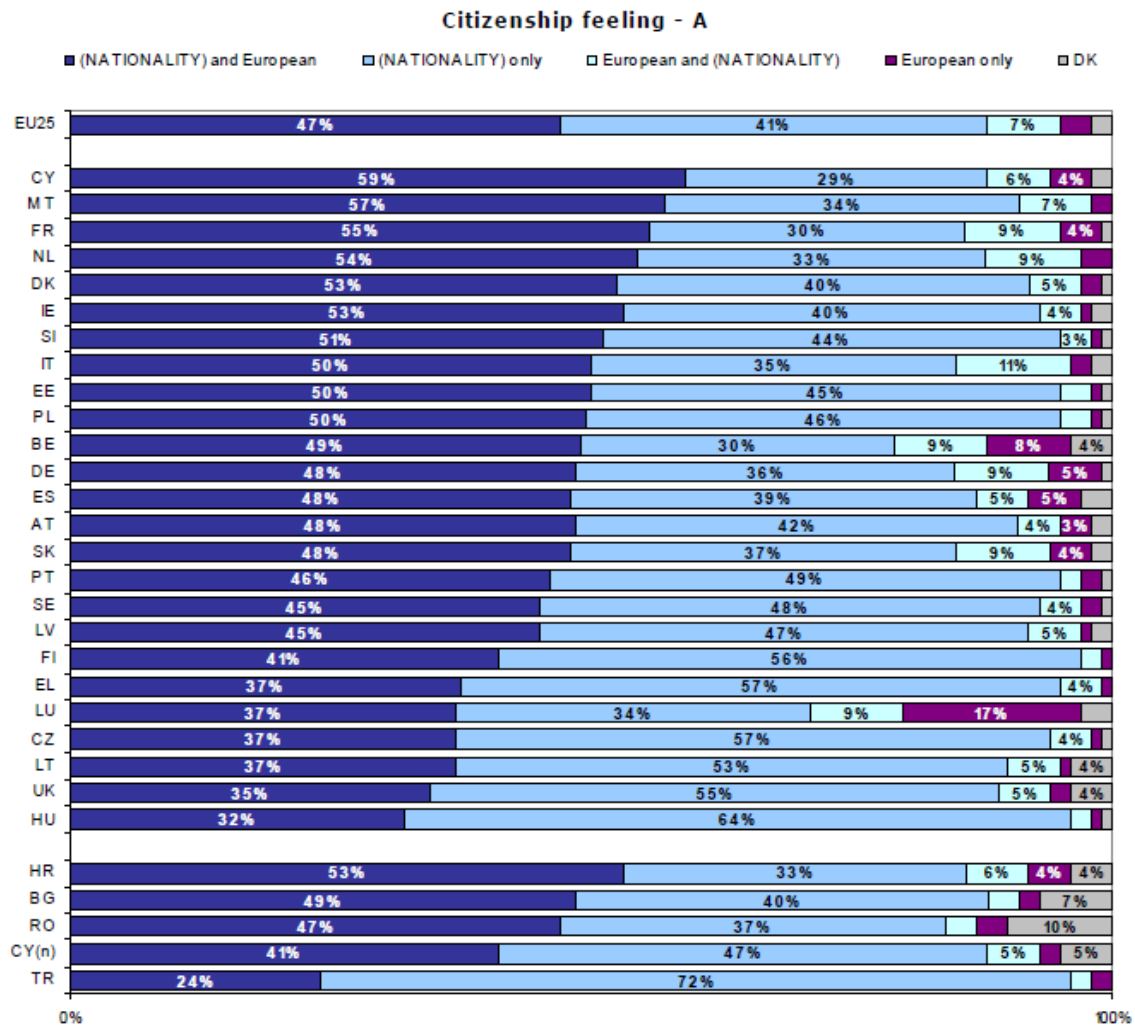Source: Eurobarometer.  2004.  p. 92.

Education level was also a very important factor in determining whether or not the

respondent identified with Europe.[26]  Generally speaking, the best-educated Europeans (20+

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[26] Eurobarometer.  2004.  p. 92.

years) identified themselves as European more frequently than less-educated Europeans (15-).

A geographic breakdown of European identification shows that some countries are more strongly European. In later analysis, the extent European identity pervades each country reliably reflects how vigorously each country has pursued a European identity via space activities. The British, for example, are one of the most strongly national countries in Europe; consequently, history has shown them to have most frequently questioned the need for European independence in space. In contrast, the French have been among the most dogged supporters of a European space program, and the relative strength of their primary and secondary European identification mirrors this. Up to this point, the desire of European space policy's norm entrepreneurs and institutional leaders to promote the idea of "Europe" has been taken as given. Historical evidence is necessary to prove this has been the intention from the inception of ESRO and ELDO to the present day.

**FIGURE 3**



**Citizenship feeling - A**

- ■ (NATIONALITY) and European
- ▣ (NATIONALITY) only
- ▢ European and (NATIONALITY)
- ■ European only
- ▢ DK

| | (NATIONALITY) and European | (NATIONALITY) only | European and (NATIONALITY) | European only |
|---|---|---|---|---|
| EU25 | 47% | 41% | 7% | |
| CY | 59% | 29% | 6% | 4% |
| MT | 57% | 34% | 7% | |
| FR | 55% | 30% | 9% | 4% |
| NL | 54% | 33% | 9% | |
| DK | 53% | 40% | 5% | |
| IE | 53% | 40% | 4% | |
| SI | 51% | 44% | 3% | |
| IT | 50% | 35% | 11% | |
| EE | 50% | 45% | | |
| PL | 50% | 46% | | |
| BE | 49% | 30% | 9% | 8% |
| DE | 48% | 36% | 9% | 5% |
| ES | 48% | 39% | 5% | 5% |
| AT | 48% | 42% | 4% | 3% |
| SK | 48% | 37% | 9% | 4% |
| PT | 46% | 49% | | |
| SE | 45% | 48% | | 4% |
| LV | 45% | 47% | | 5% |
| FI | 41% | 56% | | |
| EL | 37% | 57% | | 4% |
| LU | 37% | 34% | 9% | 17% |
| CZ | 37% | 57% | | 4% |
| LT | 37% | 53% | 5% | 4% |
| UK | 35% | 55% | 5% | 4% |
| HU | 32% | 64% | | |
| HR | 53% | 33% | 6% | 4% |
| BG | 49% | 40% | | 7% |
| RO | 47% | 37% | | 10% |
| CY(n) | 41% | 47% | 5% | 5% |
| TR | 24% | 72% | | |

0%　　　　　　　　　　　　　　　　　　　　　　　100%

Source: Eurobarometer. 2004. p. 96[27]

The intent to construct a collective European identity appeared frequently among the

norm entrepreneurs and leaders of Europe's space program. Of the European powers, the

French probably deserve the most credit for contributing towards a collective European

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[27] Abbreviations: AT = Austria, BE = Belgium, DK = Denmark, FR = France, FI = Finland, DE = Germany, EL = Greece, UK = Great Britain, IE = Ireland, IT = Italy, LU = Luxembourg, NL = The Netherlands, PT = Portugal, ES = Spain, SE = Sweden, CY = Cyprus (South), CZ = Czech Republic, EE = Estonia, HU = Hungary, LV = Latvia, LT = Lithuania, MT = Malta, PL = Poland, SK = Slovakia, SI = Slovenia, BG = Bulgaria, RO = Romania, TR = Turkey, HR = Croatia, CY(n) = Cyprus (North).

identity. It was General de Gaulle who, against the counsel of his advisors, opted to pursue

cooperation[28] on the construction of a European launcher.[29] Early on, France stood up for the

interests of smaller countries by sacrificing potential national gains from ESRO and ELDO in

order to confer enough benefits to the small countries to keep them involved. On the issue of

restricting ESRO activities, in 1960, a French delegate argued it would have been contrary to

the spirit of the space research organization to focus on national program use of ESRO

facilities; it would have privileged the large states, while conferring few benefits to the

smaller members.[30]

Though the British were frequently criticized as a roadblock towards greater

European integration, as the early European space technology leader,[31] the English had less

to gain from participating with Europe than other countries. Europe benefited from a large

pool of sophisticated technology at the United Kingdom's expense. Without the British

rocket *Blue Streak*, ELDO might not have been possible, or at least would have been set back

by years. Indeed, "it is surprising that the UK did not try to make more of the point that they

were making Europe a free gift of £60M worth of development costs."[32]

As the European Space Agency came into force, its first director, Roy Gibson, opened

an address to an assembly of ESA Ministers: "'Allow a new boy a first indiscretion … One

understands the interest which a Member State has in seeing one of its nationals appointed to

a senior post in the Agency,' but it was 'cardinal to the health of the Agency that all

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[28] Though we should temper this with the knowledge he chose to block the UK's entrance into the EEC on multiple occasions. See below citation.

[29] Kirge, J., and A. Russo. 2000. "A History of the European Space Agency: 1958-1987." Vol. 1. *ESA Publications*. Noordwijk, Netherlands: ESA Publications Division. pp. 100-1.

[30] Ibid, p. 47.

[31] Ibid, p. 9.

[32] Hill, C.N. 2001. *A Vertical Empire: The History of the UK Rocket and Space Programme, 1950-1971*. London, England: Imperial College Press. pp. 136-7.

concerned should be very, very clear that, once a person enters the Agency, he ceases to serve national interests' and act not as 'national ambassadors.'"[33] [34] Among the leadership of Europe's space institutions, the idea of a collective European identity gained ground. During the 1990s, for example, the French continued to support *Columbus*, the ESA contribution to the International Space Station (ISS), despite their outward position they no longer held interest in the project, merely for the sake of being "good Europeans."[35] The belief in space policy's ability to ascribe meaning to 'Europe' carries on in present day ESA Director General, Jean-Jacques Dordain, who believes that "[s]pace can contribute to European cohesion and identity"[36] by reaching out to citizens across Europe, building a "society of knowledge."[37]

The relationship between European space activities and European identity is "mutually constitutive," which is to say that each influences the other simultaneously, forming a feedback loop. Not only do the leaders of European space activities seek to construct a European identity, they have responded to the pressures of the environment around them and to the ideas that permeated Europe from the 1960s forward. ESRO was conceived by scientists, and supported by a Europe with the painful memory of World War II fresh in its mind. They believed firmly that the military had no place in a space science

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[33] Krige, J., Russo, A., and L. Sebesta. 2000. "A History of the European Space Agency: 1958-1987." Vol. 2. *ESA Publications*. Noordwijk, Netherlands: ESA Publications Division. p. 34.

[34] He would, however, go on to say in the same speech that the ESA had more in common with a large industrial firm than an international organization, underlining another emphasized norm of the period for European space activities – economic sufficiency. This will be important in later analysis.

[35] Beattie, Donald A. 1971. *ISScapades: The Crippling of America's Space Program*. Ontario, Canada: Collector's Guide Publishing Inc. p. 150.

[36] Dordain, Jean-Jacques. 2007. "ESA Director General's Proposal for the European Space Policy." *ESA Publications*. Noordwijk, Netherlands: ESA Publications Division. p. 19.

[37] Ibid

institution,[38] a conviction that was ingrained into each of the ESRO,[39] ELDO,[40] and the

ESA[41] Conventions. Today, Director Dordain has continued the ESA's commitment to

"exert global leadership in selected policy areas in accordance with European interests and

values."[42]

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[38] Kirge and Russo. 2000. p. 22.

[39] Sheehan, Michael. 2007. *The International Politics of Space*. New York, NY: Routledge. p. 81.

[40] Madders, Kevin. 1997. *A New Force at a New Frontier*. New York, NY: Cambridge University Press. p. 44.

[41] ESA. 2005. "CONVENTION for the establishment of a European Space Agency." 6th ed. *ESA Publications*. Noordwijk, Netherlands: ESA Publications Division. p. 13.

[42] Dordain. 2007. p. 21.

**CHAPTER TWO: Constitutive elements of the norm life cycle**

A constructivist approach to analyzing the historical narrative of European space

policy and its influence on collective identity focuses on the life cycle of a norm as a *process*

in which a multitude of variables affect how the norm emerges, spreads, becomes

internalized (if at all), and dies.  The need for norm entrepreneurs to persuade states to adopt

a norm, and subsequently, for the adoptive states to socialize it, is a *social* process which is

not adequately explained by other disciplines in international relations (IR) theory.  The

focus of this chapter is to explain what constructivism is so that categorizations may be made

for the variables that affect the construction of a norm - in this case, European collective

identity.  While constructivism provides for basic "constitutive elements," or the variables

that matter to norm construction, factors more specific to European collective identity may be

identified in the literature regarding European identity in general, which are useful in

describing the historical narrative of European space policy.

Constructivism is an approach[43] or perspective, not a theory,[44] to increase

understanding of international relations in a social context.[45]  It seeks to account for interests

and behavior,[46] which are determined not just by material factors, but also ideational

influences,[47] such as culture, norms and ideas.[48]  "From a constructivist perspective,

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[43] Kratchowil, Friedrich V.  2001.  "Constructivism as an Approach to Interdisciplinary Study."  In *Constructing International Relations:  The Next Generation*, eds.  Fierke, Karin M., and Knud E. Jorgensen. Armonk, NY: M.E. Sharp.  p. 15.

[44] Wendt, Alexander.  1999.  *Social Theory of International Politics*.  New York, NY: Cambridge University Press.  p. 193.

[45] Prügl, Elisabeth.  1998.  "Feminist Struggle as Social Construction: Changing the Gendered Rules of Home-Based Work."  In *International Relations in a Constructed World,* eds.  Kubalkova, V., Onuf, N., and P. Kowert.  London, England: M.E. Sharp.  p. 128.

[46] Ruggie, John Gerard.  1998.  *Constructing the World Polity:  Essays on International Institutionalization.* New York, NY: Routledge.  p. 4.

[47] Wendt.  1999.  p. 138.

[48] Ruggie.  1998.  p. 4.

international structure is determined by the international distribution of ideas. Shared ideas, expectations, and beliefs about appropriate behavior are what give the world structure, order, and stability."[49] Rules and norms make up social structures, within which agents interact.[50] A discussion of each of these concepts lends to greater understanding.

Constructivism is not a theory because it cannot predict interest or behavior; it can only give reasons why events took place. Constructivists face the same problem as realists - explaining change.[51] As it is meant to increase understanding of the social underpinnings of political life, the subject material which falls under the constructivist umbrella ranges from the family to the nation to transnational organizations. The norm life cycle, used here to evaluate where among the three stages of norm development European collective identity lands, is *not a constructivist theory*. Constructivism is useful to understand, historically, how a norm advances through its life cycle, but it is the model which predicts whether a norm will become internalized. Constructivist analysis may even be used to provide the information which forms the basis of a prediction, but only when coupled with another theory or model.

Constructivism is, at root, a *social* understanding of how the world came to exist as it is. Nicholas Onuf posits that the world is composed of *social* human beings. Indeed, "Social relations *make* or *construct* people – *ourselves* – into the kind of beings that we are. Conversely, we *make* the world what it is, from the raw materials that nature provides, by doing what we do with each other and saying what we say to each other."[52] Political interactions are in fact *human* interactions, and people carry with them more than the

[49] Finnemore and Sikkink. 1998. pp. 894.
[50] Prügl. 1998. p. 128.
[51] Finnemore and Sikkink. 1998. pp. 894.
[52] Onuf, Nicholas. 1998. "Constructivism: A User's Manual." In *International Relations in a Constructed World,* eds. Kubalkova, V., Onuf, N., and P. Kowert. London, England: Verso. p. 59. Italics in original.

material needs of the state or social structure they are a part of. They also carry norms and ideas, conceptions of how the world ought to be. Constructivists argue that these beliefs are expressed in human interactions and make up some part of how individuals, as well as social structures, perceive their interests and how they act upon them.

Constructivism differentiates itself from other IR approaches by giving agency to norms in the determination of interest and behavior. An interest may be defined as a "want" backed up by a "reason" for that desire.[53] Closely related, behavior is an action taken by an actor in pursuit of an interest.[54] "In rationalist models, self-interested actors maximize their utility, subject to constraints."[55] While rationalists acknowledge the presence of ideas, norms and culture, they tend to assign little meaning to their influence on interests and behavior. As a result, they tend to believe that interests do not change over time.[56] For example, Hans Morgenthau conceived of the national interest purely in terms of power; he believed every choice that the state made was in the pursuit of comparative benefits.[57] While subsequent revisions of realism would allow for different forms of power beyond military strength, such as economic, cultural or even moral power, the basic interest remained the same; securing comparative material benefits for the state. Constructivists do not deny that there are material bases for interests, merely that ideas *also* form a basis in the determination of

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[53] Ball, Terrence. 1979. "Interest-Explanations." *Polity*, Vol. 12, No. 2. pp. 200-1. This is an extension of Hannah Pitken's definition of an "interest" simply as a "want." (See Pitkin, Hannah F. 1967. *The Concept of Representation*. Los Angeles, CA: University of California Press. p. 160) Ball contends that an interest cannot merely be a want, as wants are not always acted upon. Behavior stems from a particular want that the actor has some reason for pursuing. For example, there is a difference between saying, "I want that piece of land," and "I want that piece of land because I deserve it more than its owner does."

[54] Ball. 1979. p. 190.

[55] Goldstein, Judith, and Robert O. Keohane. 1993. "Ideas and Foreign Policy: An Analytical Framework." In *Ideas and Foreign Policy: Beliefs, Instiutions, and Political Change,* eds. Judith Goldstein and Robert O Keohane. Ithaca, NY: Cornell University Press. p. 4.

[56] Ruggie. 1998. p. 33.

[57] Morgenthau, Hans, and Kenneth Thompson. 1985. *Politics Among Nations*. 6th ed. New York, NY: McGraw-Hill. p. 165.

interests,[58] and that because of ideas, interests can *change*.[59]  Kathryn Sikkink provides

historical evidence supporting this concept in her work on human rights policies in the US

and Europe.  She found that both the US and Europe (the US more slowly than Europe)

adopted human rights policies purely in the belief that they ought to do so.  Neither region

stood to benefit from the policy choice materially, as the countries they directed human rights

pressure towards were already developing economically in ways beneficial to the West.[60]

For Sikkink, this indicated the transformative power of ideas on interests.  "Ideas are the lens,

without which no understanding of interests is possible.  Ideas transform perceptions of

interests,"[61] and even the political and economic interests realists promote require an *idea* of

what those interests are to begin with.[62]

Norms and ideas, according to constructivists, constrain behavior.  Once norms

become institutionalized, they can limit choices for behavior according to ethical or moral

rationale.[63]  To extend Sikkink's example, Europe limited its possible avenues to pursue

material well-being by honoring an ethical commitment to human rights.  Similarly, when a

norm goes *out* of vogue, the stigma attached to the norm can block the pursuit of interests

determined by the antiquated belief.[64]  For example, as the appropriateness of dueling in

America declined, the practice which before allowed individuals to resolve injuries to honor

became constrained by ethical standards.  Interests and behavior are not merely constrained

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[58] Wendt.  1999.  p. 138.
[59] Sikkink, Kathryn.  1993.  "The Power of Principled Ideas: Human Rights Policies in the United States and Western Europe."  In *Ideas and Foreign Policy: Beliefs, Instiutions, and Political Change,* eds.  Goldstein, Judith, and Robert O Keohane.  Ithaca, NY: Cornell University Press.  p. 140.
[60] Ibid, p. 157.
[61] Sikkink, Kathryn.  1991.  *Ideas and Institutions: Developmentalism in Brazil and Argentina.*  Ithaca, NY: Cornell University Press.  p. 243.
[62] Ibid, p. 244.
[63] Goldstein and Keohane.  1993.  p. 16.
[64] Finnemore and Sikkink.  1998.  pp. 891-2.

by norms, however.  There are several other constitutive elements which may affect their development.

      "Agents" engage in behavior within a "structure."  Agents may be defined as "the active participants in a society."[65]  They are typically thought of as "people who act on behalf of other people,"[66] but they may also take the form of groups or organizations.  Presidents, interest groups, and Amnesty International would all be examples of agents.  All agents have interests.[67]  If Amnesty International one day came to the conclusion it had fulfilled all of its objectives as an institution, it would cease to be an agent, for it would no longer have a reason to act without the determination of new interests.  Structures are difficult to define, as they are what an agent *sees*, but not what they *behave within*.[68]  An illustration makes this clearer:  the Internet is a structure for behavior, but one does not connect to the Internet, per se.  One's home computer connects to an internet service provider, which is an institution.  Similarly, leaders may "see" the international system, but they behave within and between states or transnational institutions.  Agents *see* structure, but *behave* within institutions.  Agents behave according to interests, but this very interaction may affect how they perceive their interests in the next interaction.  For example, a farmer may believe it is in his interest to assist his neighbor in maintaining common irrigation ditches up until the point the neighbor ceases to do his part in maintaining the system.  At this point, it is in the farmer's interest to maintain only his own irrigation to mitigate the free-riding of his neighbor.  Agents are also constrained by their structure.  Villagers who live in a lost kingdom see only their village and behave accordingly.  If they are discovered by outsiders, their behavior and

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[65] Onuf.  1998.  pp. 59-60.
[66] Ibid, p. 60.
[67] Ibid.
[68] Ibid, p. 62.

interests will change accordingly.  Structure is similarly sensitive to agents, interests and

behaviors.  Changes in one may lead to changes in structure, and vice versa.  The entire

existence of structure depends on the stable *co*-existence of several factors:  agents,

institutions, and rules.[69]

A rule is defined as "a statement that tells people *what* we *should* do."[70]  Rules have

two characteristics: they are both regulative and constitutive.[71]  Regulative rules are meant to

have causal effects.  For example, speed limits are intended to serve a range of utilitarian

purposes, from increasing fuel efficiency to reducing accidents.  Speed limits are not

necessary for an individual to be able to drive his car.  Constitutive rules, on the other hand,

"define the set of practices that make up any particular consciously organized social

activity."[72]  For example, the rules of chess are necessary to play the game at all.  According

to Gould, constructivists believe agents and structures make each other "real" by interacting

within the rules that permit their conduct.[73]  Constructivists care most about the constitutive

rules present within a structure because these rules "make agents out of individual human

beings by giving them opportunities to act upon the world."[74]  Despite their particular

importance to structure, rules are mutually constitutive with interests, behavior, and agents as

well.  Rules can constrain interests, particularly where norms are involved.  For example, the

belief system of a Buddhist monk limits his material interests.  Rules have a stronger effect

on behavior.  Without a common system of time, the ability of individuals to coordinate their

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[69] Ibid, p. 61.
[70] Ibid, p. 59.
[71] Ruggie.  1998.  pp. 22-3.
[72] Ibid.
[73] Gould, Harry D.  1998.  "What Is at Stake in the Agent-Structure Debate?"  In *International Relations in a Constructed World,* eds.  Kubalkova, V., Onuf, N., and P. Kowert.  London, England: M.E. Sharp.  p. 96.
[74] Onuf.  1998.  p. 64.

activities would be severely diminished. In concert, all of these constitutive elements – interests, behaviors, agents, structures, rules and norms – play a part in the social construction of collective identity.

Communication among agents is a critical component in the construction of identity. As Paul Kowert argues, constructivists claim that "people strive not only to make sense out of their world and to act within it, but also to communicate their understandings to others. At the same time, the process of communication *is* a process of making sense … speaking *is* doing *is* knowing."[75] This matters because speech acts may in turn be institutionalized into rules, which has a constitutive effect on the agents and the structure they act within - even in ways that benefit some actors, while disadvantaging others.[76] Any effect on norms, rules, agents or structures consequently impacts interests and behavior, because each interaction influences what the agent wants (interest) and how he is going to get it (behavior). This in turn affects identity, as each change in interest and behavior results in a change in how individuals perceive themselves and the world. In order for collective identity to form, a group of people must arrive and remain within a similar world view, constructed by the events and pressures of the world around them. This is only possible through social interaction. *Culture,* then, is constructed when individuals *communicate their values* to one another and come to a "common set of stable, habitual preferences and priorities in

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[75] Kowert, Paul. 1998. "Agent versus Structure in the Construction of National Identity." In *International Relations in a Constructed World,* eds. Kubalkova, V., Onuf, N., and P. Kowert. London, England: M.E. Sharp. p. 104. Italics in original.

[76] Zehfuss, Maja. 2001. "Constructivism in International Relations: Wendt, Onuf, and Kratchowil." In *Constructing International Relations: The Next Generation*, eds. Fierke, Karin M., and Knud E. Jorgensen. Armonk, NY: M.E. Sharp. p. 59.

[people's] attention and behavior, as in their thoughts and feelings.'"[77]  In terms of the norm life cycle model, this convergence of norms represents the third stage of "internalization."

In review, there are six constitutive elements from the constructivist literature to search for in the historical analysis.  These categories of variables will serve to increase understanding of the construction of European collective identity, and its place in the norm life cycle.  Interests, behaviors, norms, agents, structures, and rules each affect how and why people interact, and in turn, those interactions cause changes in each of these constitutive elements, which in turn affects the next interaction in an unending process of mutual constitution.  With the core constitutive elements defined, understanding of European identity's life cycle may be increased further by considering additional constitutive elements particular to the case of European space policy.  Two elements from the norm life cycle discussion in Chapter One, norm entrepreneurs and epistemic communities, are particularly germane.

In the norm life cycle, norm entrepreneurs are a special kind of agent.  Whereas the normal agent constructs their interests, the entrepreneur manufactures them.  Norm entrepreneurs create their own interest through "empathy, altruism and ideational commitment."[78]  For the entrepreneur, promotion of the norm produces its own utility.  Other agents, even those who adopt particular interests simply because they believe they ought to, inevitably pursue at least some material interests in order to survive.  Norm entrepreneurs eat, of course, but as agents of their particular norm, their behavior is consumed entirely by selling the idea, even if the particular norm they are trying to promote in fact encourages

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[77] Fligstein. 2008. p. 130.
[78] Finnemore and Sikkink. 1998. p. 898.

material interests.  Norm entrepreneurs who successfully persuade states to adopt their norm

can affect any of the constitutive elements via the critical mass of states they convince.

Entrepreneurs seldom have the power to coerce behaviors themselves, so they persuade

power-holding states or institutions to do it for them.[79]  Norm entrepreneurs may take the

form of individuals, interest groups or institutions.  Particular institutions, offering expertise

in a particular policy area, briefly introduced as "epistemic communities," similarly play an

important role in introducing a new norm.

The history of European space policy shows that epistemic communities have played

a discernable role in the direction of Europe's space institutions by guiding the space

program through each major development in its history.  Several committees have helped to

guide European space policy, perhaps most notably, the European Space Council (ESC).  The

ESC was a panel of experts who were assembled initially to serve as a forum for

representatives of ELDO's and ESRO's member states to arbitrate problems.[80]  It took on a

much larger role, however, in transforming the initial European space programs into the

single European Space Agency, which exists today.[81]  Since then, the ESA has itself become

an epistemic community, consulting for the European Union on issues involving space,

where requested, in an advisory capacity.[82]  Epistemic communities often act in a similar

manner to norm entrepreneurs.  The advice dispensed by these groups carries ideas about

what their benefactor's interests ought to be to achieve a particular goal.  In the case of

European space institutions, the ESC and similar epistemic bodies progressed European

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[79] Ibid, p. 900.
[80] Sheehan.  2007.  p. 80
[81] Madders.  1997.  p. 124.
[82] ESA Strategy Department.  2003.  "Agenda 2007."  *ESA Publications*.  Noordwijk, Netherlands: ESA
Publications Division.  p. 16.

identity by pushing ELDO and ESRO to make structural and rule changes beneficial to that end. Outside constructivism and the norm life cycle model, the literature which explores the construction of a European collective identity offers a handful of constitutive elements germane to the history of European space policy. Two are particularly helpful to the narrative of European space history: invented histories and the construction of an "other."

Identity begins with history, whether that history is real or imagined. It is "central to the imagining of community, for how people experience the past is intrinsic to their perception of the present."[83] The problem with Europe is that it is difficult to find such a common history. Much of the last 150 years in Europe was defined by nationalism, and many Europeans fought very hard to protect and distinguish their national sense of self.[84] In order to build a common European culture, norm entrepreneurs and regional leaders are going to have " 'to get Europe's history wrong' … To falsely invent history as a construction of intellectuals is the basis of a shared collective identity."[85] Only through this process of invention and reinvention may a "continuity with the past"[86] result in a common history. Alternatively, identities may be formed through a process of "*experiences* and their *interpretation.*"[87] Experiences, alone, hold no normative value; they are simply occurrences or events, and mean nothing. However, when experiences are *ascribed* meaning through interpretation, the experience becomes worth something to either an individual or a group of

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[83] Shore. 2000. p. 41.
[84] Muschg, Adolf. 2005. " 'Core Europe': Thoughts About the European Identity." In *Old Europe, New Europe, Core Europe*, eds. Levy, D., Pensky, M., and J. Torpey. New York, NY: Verso. p. 22.
[85] Eder, Klaus. 2001. "Integration through Culture? The Paradox of the Search for a European Identity." In *European Citizenship between National Legacies and Postnational Projects*, eds Eder, Klaus, and Bernhard Giesen. p. 226.
[86] Hobsbawm, Eric, and Terrence Ranger. 1983. "Introduction: Inventing Traditions." In *The Invention of Tradition*, eds. Hobsbawn, E., and T. Ranger. New York, NY: Cambridge University Press. p. 1.
[87] Wagner, Peter. 2008. "Does Europe Have a Cultural Identity?" In *The Cultural Values of Europe*, eds. Joas, H., and J. Wiegandt. Liverpool, England: Liverpool University Press. p. 36.

people, who then change their perception of the world and how they interact with others.

Interpreted experiences always involve norms. People *believe* the experience meant

something, whatever that may be. With regards to European space policy, there are entire

books filled with technical histories of every single space project ever conceived and

pursued. The key to building a common history through European space institutions is for

someone to interpret those occurrences as meaningful. Beyond invented histories, the

European collective identity literature provides one other constitutive element included in the

subsequent historical analysis: the creation of an "other."

International interaction between Europe and foreign powers legitimizes the concept

of "Europe" by constructing an out-group. Constructivists "argue and have shown that even

identities are generated in part by international interaction – both the generic identities of

states *qua* state, as well as their specific identities, as in America's sense of difference from

the old world or from godless communism."[88] Interactions between the United States and

Europe have partially fulfilled the construction of an American out-group with respect to

Europe, though not perfectly. The business of comparing itself to America has been

awkward for Europe. On the one hand, Europe "regarded American society as inferior

morally and culturally…"[89] and sought to distinguish itself from the US in this capacity.

Still, for a long while, Europeans wanted very much to replicate the economic and

technological success of "American modernity."[90] In this respect it became closer to the

United States. Europe's indecision whether to push or pull the US from the European circle,

in terms of space policy history, has been a function of American interests and behaviors

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[88] Ruggie. 1998. p. 33.
[89] Wagner. 2008. p. 366.
[90] Ibid.

with respect to its Atlantic partners. The American impact on the construction of a European in-group is interesting, and will garner its own section in Chapter Seven.

Let us review the identified constitutive elements that we seek in a history of European space policy. From the constructivist literature, there are six basic components of social construction: interests, behaviors, agents, structures, rules and norms. In addition to the basic elements, a discussion of the life cycle model and the general European experience has suggested additional elements to look for while examining the European space policy historical narrative. The constitutive effects found in these tow areas include, but are not limited to: norm entrepreneurs, epistemic communities, the basis for a common history and the development of "other."

**FIGURE 4**

| Constitutive elements … | |
| --- | --- |
| **…found in the constructivist literature.** | **…found in the general European experience.** |
| Interests | Norm entrepreneurs |
| Behaviors | Epistemic communities |
| Agents | The basis for a common history |
| Structures | The development of "other" |
| Rules | |
| Norms | |

Each of these ten constitutive elements increases understanding of European space policy's progress of European collective identity in the norm life cycle. They shall be identified and discussed in each subsequent chapter. Constructivist analysis begins with the narrative of the European space program's birth.

**CHAPTER THREE: European space policy and norm emergence**

In European space policy history, the norm that European states ought to behave *as Europeans* underwent the first stage of the norm life cycle from 1957 to 1975. Although both ELDO and ESRO each experienced tipping points into the second stage early on, the appropriateness of European behavior among European space institutions lost out to other norms during the 1960s as a consequence of the pressures and events of the time. Applying the lessons of ESRO and ELDO, however, the European Space Council (ESC), with the help of France, began another cycle of norm emergence which succeeded in advancing the norm into its second stage permanently (to date).

This section presents a historical narrative of European space policy history, interrupted by constructivist analysis to signpost progress along the norm life cycle. The constitutive elements identified in Chapter Two are applied here, as well as in Chapter Four, to help understand why the appropriateness of European cooperation developed the way it did.

*The birth of ESRO*

The space era began with the launch of Sputnik. On October 5, 1957, the Soviets announced the successful launch of Sputnik I.[91] It was a simple device whose only functions were to carry out basic atmospheric tests, and most importantly, to transmit a repeating signal down to the surface[92] that people could listen to on their radios. For such humble functions, this small satellite caused a massive uproar. The American public perceived this as a

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[91] Kirge and Russo. 2000. p. 6.
[92] Ibid.

confirmation of Soviet ability to deliver nuclear warheads to the North American continent and became swept up in panic.[93]  Behind closed doors, President Eisenhower knew the Americans were outpacing the Soviets in the technology necessary to deliver nuclear weapons.  However, he underestimated just how severely Sputnik would affect the national psyche.[94]  President Kennedy recognized and tapped into the immense importance the public placed on space technology, declaring during his election campaign, "we cannot run second in this race.  To [ensure] peace and freedom, we must be first."[95]  On May 25, 1961, President Kennedy stepped before Congress and challenged the country to a race to the moon, consuming NASA for ten years.[96]

The reaction in Europe was not quite as intense as in America, but the Sputnik launch made "scientists in both France and Britain [begin] to appreciate the technological gulf that separated them from their Soviet counterparts."[97]  In comparison to European capacity, the Americans and Soviets were committing unconscionable levels of resources to their space race, and the Europeans really had no way of directly competing.[98]  As such, it was assumed early on that the likely course of space technology in Europe, if any, would be a multi-national effort.  The British, French and Italian national space programs, which got their start in the mid-1950s carried on while they considered their options, and were courted by both the Americans and Soviets for cooperation on satellite projects.[99]  This is not to say there was an

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[93] Gray, Mike.  1992.  *Angle of Attack: Harrison Storms and the Race to the Moon.*  New York, NY: Penguin Books.  p. 47.
[94] Ibid.
[95] Von Bencke, Matthew J.  1997.  *The Politics of Space: A History of US-Soviet/Russian Competition and Cooperation in Space.*  Boulder, CO: Westview Press.  p. 2.
[96] Kennedy, John F.  "Special Message to Congress on Urgent National Needs."  Address to Congress.  May 25, 1961.
[97] Collins, Guy.  1990.  *Europe in Space.*  London, England: Macmillan.  p. 7.
[98] Kirge and Russo.  2000.  p. 11.
[99] Ibid.

absence of urgency in Europe. Several countries convened committees on the issue of space research, and the European Center for Nuclear Research (CERN) considered a request in 1957 to create a European center for rocket research.[100]  NATO had proposed a "European NASA," but the military connotations that came with the Atlantic security organization made this unattractive to Europeans.[101]  Additionally, the European Economic Community entertained a separate recommendation from the Council of Ministers on "the concept of a space agency for Europe."[102]  But instead of the halls of Parliament or meetings among state representatives, the European Space Research Organization got its start in the home of a French professor.[103]

ESRO was conceived by academics, not national policy-makers, and its origins "can be attributed to two leading scientists: Edoardo Amaldi in Italy and Pierre Auger in France. Both men had been involved in the formation in 1954 of the European Center for Nuclear Research (CERN) … After the launch of Sputnik-1 by the Soviets and the start of the American space program, it became apparent that space science was another field where the efforts of individual European nationals were inadequate."[104]  Impressed by the scientific yield of American and Soviet and emboldened by the success of CERN, Amaldi and Auger met in the Luxembourg gardens of Paris in April, 1959.  There, they discussed the possibility of a CERN-like entity devoted to research in the spatial sciences.[105]  Cooperation in space

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[100] Ibid, p. 24.
[101] Ibid, pp. 23-4.
[102] Harvey, Brian.  2007.  *The Rebirth of the Russian Space Program: 50 Years after Sputnik, New Frontiers*. Chichester, UK: Praxis Publishing.  pp. 39-40.
[103] Ibid.
[104] Bonnet, Roger M., and Vittorio Manno.  1994.  *International Cooperation in Space:  The Example of the European Space Agency*.  Cambridge, MA: Harvard University Press.  pp. 4-5.
[105] Kirge and Russo.  2000.  p. 13.

science would be a peaceful means of competing with the Americans and Soviets, and could improve Europe's 'moral authority.'[106]

Amaldi and his supporters insisted the military not be involved in any international space science organization. The Italian scientist felt keenly that the military should be left out of such an international research organization, and that it should pursue ideational, rather than purely material goals. "The conquest of space had to be a peaceful enterprise on behalf of the whole of mankind, he claimed, and the presence of the military would prevent a space organization from pursuing this 'moral' goal."[107] If the military were allowed to be involved, he believed each country would try to build its own rockets.[108] Amaldi's strong anti-military sentiment stemmed from limitations the military had placed on his own research in the past. Further, he believed only a peaceful organization would gain the support of neutral countries, such as Sweden and Switzerland.[109]

Scientists tried very hard to maintain control of any new space science organization. They pushed to put themselves, in place of bureaucrats tied to home governments, on the budgetary and policy making councils. Although they wanted government money, they also wanted to prevent governments from meddling with their projects.[110] Government involvement was inevitable, however, for running parallel to the formation of a scientific space organization were state-level negotiations dealing with the question of a European

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[106] Ibid, p. 20.
[107] Ibid, p. 14.
[108] Ibid, p. 22.
[109] Ibid, p. 22.
[110] Ibid, p. 34.

launch vehicle.[111]  The obvious link between space science and rockets kept governments

apprised and involved in the scientific end of space activities.

Four years after the initial protocol was signed in 1959 to begin laying out the

framework of ESRO, the resulting Convention came into effect in March 1963.  "Under the

terms of its convention, ESRO was to promote collaboration among European states,

exclusively for peaceful purposes.  The initial member states were Belgium, Denmark,

France, West Germany, the Netherlands, Spain, Sweden, Switzerland and the UK.  Austria,

Norway and Ireland were given observer status."[112]  The development of a European

launcher would proceed much differently.

The interactions between the US and the Soviet Union resulting from Sputnik created

a new structure for interaction among states.  Both Kennedy and the Soviet propaganda

machine recognized and exploited the public perception of space technology as a symbol for

power.  The Americans and Soviets engaged in the new structure through their space

institutions, NASA and the Soviet military, respectively.  The structure was open also to

European states, but their ability to respond was severely constrained by the underdeveloped

state of their national space institutions.  The contrast in technological capacity between the

superpowers and European states was galvanizing.  *Europe* - not just individual European

states - was seriously behind on the technology curve, lending to the European

conceptualization of "other."  The resulting conversation was not "what will the Frenchmen

do?" or "what will the British do?" but "what will *Europeans* do?"

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[111] Ibid, p. 33.
[112] Sheehan.  2007.  p. 81.

Enter Amaldi and Auger. As norm entrepreneurs, they open the first stage of the norm life cycle, attempting to persuade Europeans states to respond *as Europeans* through a peaceful, scientific organization. As a result of their experiences in CERN, their dislike for the military, the scientific productivity of American and Soviet space institutions, the pressures exerted by the Russo-American space race, and the resulting felt need among European states to close the technological gap, they constructed their proposed solution to the American and Soviet challenge: a common European space science institution.

To be sure, there were several strictly material motivations behind this solution. Functionally, European states could not afford to match the expenditures of the superpowers as individual states. The economic rationale for cooperation among European states could be predicted by rationalist explanations of behavior. To a realist's line of thinking, the intent behind cooperation on the scale of Europe, while extraordinary, would be pursued in the interest of power in comparison to the superpowers. Further, the conditions constructed by Sputnik gave European space scientists an excellent opportunity for increased government-financed research. These rationales are undeniably present in Amaldi's and Auger's courtship of national policy-makers, but they also sought something more.

Amaldi and Auger were norm entrepreneurs for their promotion of an extra-rational sense that proceeding as Europe was useful beyond a narrow, competitive utility. For them, the construction of a European collective identity had value beyond the ability to provide competitive benefits with respect to space capability. Amaldi believed European states should worry first about building an international organization with both a "European" and

"scientific character."[113]  Once those were established, material benefits, such as increased

security, would fall into place easily.[114]

The effect of the ESRO Convention was to provide a structure for European

interaction and a set of constitutive rules which enabled those interactions.  Science had

always possessed an international character, but under ESRO it was specifically European.

As a standalone organization, its potential to integrate Europe was limited, but it added a

layer to the history of *European* experiences.  Its convocation was an important step in the

*process* of constructing a collective identity, for the negotiation of rules was a process of

bargaining state interests which would otherwise interfere with the European character of the

institution.

The institutionalization of ESRO, with respect to European space *science* up until

1963, would be considered a tipping point for proceeding to the second stage of the norm life

cycle.  Although events would unfold in way to cause this foray into the second stage to

become abortive, for a short while, the future of European space science was bright.


*The birth of ELDO*

The diverging motivations behind ELDO and ESRO pushed the two programs down

separate paths.  Whereas the scientists wanted a space program to conduct atmospheric and

space experiments, the politicians wanted a space program to fulfill political, military and

commercial interests.  The instinct was to keep the two separate.[115]  The French gave explicit

reasons for divorcing these two programs.  For one, they felt the high costs of developing a

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[113] Kirge and Russo.  2000.  p. 17.
[114] Ibid.
[115] Bonnet and Manno.  1994.  p. 12.

launcher would marginalize the availability of funds for science projects. Furthermore,

combining the two programs would make membership very costly for smaller countries, and

would exclude the neutral countries who wanted no part in technology that could change the

balance of power.[116]

The birth of ELDO stemmed from a convergence of interests between the power

centers of Europe. At the time of Sputnik's launch, Britain was the leader of Europe in

rocket technology owing to captured German rockets in World War II.[117] Even so, the

premier UK national missile project, *Blue Streak*, was not meeting the strategic expectations

of the British military. Powered by cryogenic fuels, *Blue Streak* was limited to first-strike

capability. By 1960, the military had lost confidence in *Blue Streak* as a weapon, and

cancelled the project.[118]

But the British were loathe to let the millions already spent on *Blue Streak* go to

waste, believing it would be damaging to the national psyche.[119] The government began

searching for ways to keep the project alive while reducing costs. "The idea that Blue Streak

could be more appropriately used in a civilian space programme was first floated by Geoffrey

Pardoe, head of the Blue Streak project with De Havilland, during an industrial symposium

in late 1959 and was pursued in contacts with French officials during 1960."[120] At the time,

the French were completing construction of their *Veronique* missile, which was powerful

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[116] Kirge and Russo. 2000. pp. 36-7.
[117] Ibid, p. 9.
[118] Harvey. 2007. p. 38.
[119] Kirge and Russo. 2000. p. 85.
[120] Collins. 1990. p. 8.

enough to launch small satellites. France was not in the position, however, to develop a heavy launcher, and desired British technical knowledge on the subject.[121]

In terms of heavy launcher technology, the French needed the British more than the other way around. However, the British were also interested in entering the European Economic Community[122] and saw this as an opportunity both to defray the costs of *Blue Streak* and prove that the UK could be a valuable member of Europe. In September, 1960, the British formally offered *Blue Streak* to be used as the first stage rocket of a joint launcher project with the French. By January, 1961, Harold MacMillan and General de Gaulle had agreed that the British would provide the first stage, the French, the second, and a third stage from another joint participant.[123] "To encourage Germany's participation in the Anglo-French project they were promised the third stage of the launcher. That left Italy. And the Italians, like the Germans before them, were most unenthusiastic about the scheme."[124] Speaking for the Italians, Edoardo Amaldi argued the French and English would bias industrial contracts to themselves, the task of organizing such a large project would be difficult between countries, and the costs of independent development would be unjustifiable when the same technology could be purchased from other countries.[125] The conflict was settled by offering the Italians the duty of building the satellites to be sent up by the completed launcher.

On March 29, 1962, "a convention setting up the European Launcher Development Organization (ELDO) was formally signed in London by its seven member states – France,

[121] Sheehan. 2007. p. 77.
[122] Harvey. 2007. p. 39.
[123] Ibid, pp. 40-1.
[124] Kirge.and Russo. 2000. p. 95.
[125] Ibid, p. 95.

Britain, West Germany, Italy, Belgium, the Netherlands and Australia."[126] The involvement of the Australians owed mainly to the need for the Anglo-Australian launch site in Woomera, ideal for its proximity to the equator.[127] [128] The Belgians and Dutch, on the other hand, sought involvement more purely to become part of a European effort, gain experience in space technology, and perhaps garner some national prestige in the process. The convention was ratified in February, 1964.[129]

Like ESRO, ELDO was born in part for a felt need to create an institution that did more than simply compete with the superpowers in space. ELDO was not, however, the brainchild of the same individuals who brought the space research organization into being. The norm entrepreneurs of a European approach to building a launcher were Britain and France. They were unlikely norm entrepreneurs, according to the standards of the norm life cycle theory, for they wielded the power of coercion as well as persuasion.[130] However, for each their own reasons, the UK and France persuade their neighbors it was in their interest to behave as Europeans in the development of a space launcher.

Despite the powerful presence of state level interests in the formation of ELDO, Britain and France make extra-rational policy decisions favoring the development of Europe. As the two leading technological and economic powers of the region, Britain and France could likely have produced a launcher bilaterally if all they were interested in was to ensure an autonomous launcher capability.[131] However, both countries consciously sacrificed

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[126] Sheehan. 2007. p. 77.
[127] Ibid.
[128] The closer to the equator, the more a rocket could take advantage of the initial velocity granted by the Earth's rotation.
[129] Madders. 1997. pp. 41-2.
[130] Finnemore and Sikkink. 1998. p. 900.
[131] Kirge and Russo. 2000. pp. 96-7.

efficiency, comparative gains, and freely permitted the transfer of costly technology in order to form a *European* organization. The addition of German, Italian, Belgian, Dutch and Australian resources was welcome to France and the UK, but economically speaking, the smaller states were getting the best deal.

A tipping point in the norm cycle occurred when West Germany and Italy were persuaded to join ELDO. At that time, plans for a European launcher became viable, and the remaining signatory countries found joining in their interest to behave as Europeans even without the enticements that were necessary for Germany and Italy. The benefits ELDO imbued to the idea of "Europe" were similar to those conferred by ESRO. The structure and rules institutionalized by the ELDO Convention added another layer to the history of European endeavors.

Here, the application of the norm life cycle model becomes problematic. While the promoted norm between the two sets of norm entrepreneurs belonging to ESRO and ELDO, respectively, is the same (the appropriateness of a European approach to meeting challenges in space), there are two tipping points that occur at separate points in time. While unaccounted for by the norm life cycle model, the multiple tipping points among different tracks of European space cooperation fits with the constructivist understanding of the process of norm or identity formation. Constructivism concerns itself with the origins of social facts,[132] and contemporary European space policy originates from a complicated history of antecedent policies. A process as complex as coordinating the space activities of more than a dozen self-interested states should be expected to have multiple starts and stops leading to a *single* European space entity.

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[132] Ruggie. 1998. p. 13.

Unfortunately for ELDO, like ESRO, progress into the second stage would be short lived as subsequent events caused its members to question the appropriateness of a European approach to space.

*ESRO's successes*

Between ELDO and ESRO, the latter enjoyed many more tangible successes, and the innovations it made to its industrial policy survive to this day. After the ESRO Convention had been fully ratified, it came into operation in March, 1964.[133] "ESRO was intended from the start to function independently of ELDO, designing sounding rocket experiments and satellite projects by taking no part in the development of launch vehicles. As a result, when the Europa rocket started to run into serious problems in the mid-1960s, ESRO was able to continue its programmes through launches offered by [NASA]."[134] As a disadvantage that would turn out to be a mixed blessing, ESRO did not enjoy ELDO's ability to separate its projects into subsections – the satellites it planned to construct had to be built in whole.[135] It did not take long for the issue of which countries got what contracts became a barrier to cooperation.

In the interest of fairness to member states, "[t]he principle of *juste retour* was adopted. This was the principle that contracts and responsibilities should be shared between the member states according to the financial contributions made to ESRO. Although the principle of *juste retour* seemed to contain the seeds for further division, in reality, it rarely proved a problem within ESRO."[136] ESRO's founders also made the conscious decision to

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[133] Harvey, Brian. 2003. *Europe's Space Programme: To Ariane and Beyond*. Chichester, UK: Praxis Publishing. p. 40.
[134] Collins. 1990. pp. 9-10.
[135] Madders. 1997. p. 77.
[136] Harvey. 2003. p. 51. Italics in original.

spread the new organization's facilities evenly across its member states. While this would sacrifice some level of efficiency, politically, the decision was valuable, and as the Belgians pointed out, NASA's dispersal of its facilities across the US did not seem to significantly slow its efforts.[137]

The biggest hurdle faced by ESRO was its own ambition. Although many of its smaller, atmospheric experiments were unqualified successes, the first big-ticket projects of ESRO highlighted its inexperience. Plans for two large satellites - the Large Astronomical Satellite (LAS) and a second, proposed satellite that would either perform a comet fly-by or pass by Jupiter – were grossly underestimated in both complexity and cost. Yearly budgets were significantly strained, which did not go over well with member states who perceived the projects as high-cost and low-value.[138] Overall, ESRO's flight record was far superior to ELDO's. "Seven ESRO satellites were put in orbit between 1968 and 1972 and these performed well, returning useful scientific data."[139] Although it ran into trouble in the early 1970s owing to issues regarding the coherency of the European space program, it was never officially scrapped until ESA came into force in 1975.

The constitutive rules institutionalized through the adoption of *juste retour* were critical to ensuring the long-term viability of ESRO. Although the industrial arrangement catered directly to national economic interests, it enabled the member states to proceed as Europe. Although norms and their influence on interests and behavior are important to constructivism, the approach is careful to qualify that states adopt both material and

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[137] Kirge and Russo. 2000. pp. 54-5.
[138] Bonnet and Manno. 1994. p. 16.
[139] Harvey. 2003. p. 56.

ideational bases as they form their interests,[140] as is consistent with *juste retour*. ESRO member states addressed both national *and* European interests by institutionalizing the industrial policy. The effect was to strengthen the structure created by the ESRO Convention, and to embolden the organization to pursue large projects under the belief of its own capability to proceed as Europe.

Although LAS and the second, never-formalized project reminded ESRO of the limits of its capabilities, the string of successes with sounding rockets and small satellites added another layer to the history of European accomplishments. These are the kind of experiences which could be interpreted as meaningful to the cause of Europe, and lend credence to the idea among European states that it was in their interest to proceed as Europe.

With respect to European space *science*, ESRO enjoyed a temporary, bounded continuation into the second stage of the norm life cycle. Its members were convinced of the appropriateness of a European approach to space science, and managed to socialize some of its principles such as *juste retour*, which survived into the ESA years.[141]

*ELDO falters*

Returning to ELDO, the French, British, West Germans, Italians, Belgians, Dutch and Australians had ratified the ELDO Convention in February, 1964. Whereas ESRO had enjoyed a great deal of success building a program that created a truly European structure for each of its members to interact in, the manner of ELDO's construction did not share its counterpart's integrative spirit.

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[140] Wendt. 1999. p. 138.
[141] Krige and Russo. 2000. pp. 27-9.

The ELDO Convention was constructed in a way that privileged state interests over the well being of the organization. The 33-point program of powers and voting rights present in the Convention were written to keep the institution weak.[142] The Secretary General of ELDO, by Convention, was granted "only the vague power of coordinating activities which, for the most part, were conducted by already existing and powerful national organizations, in particular in France and in the United Kingdom."[143] To be fair, the ELDO Convention was not totally devoid of pan-European sentiment. The language of the preamble was written to emphasize the "collective nature of the new European technological community,"[144] and expressly forbade the use of *Europa*[145] for military applications (though truly, there were few[146]).

Early on, ELDO was beset by technical, budgetary and political problems. Inexperience with launcher technology caused initial cost projections to be seriously below the true cost of developing *Europa*.[147] Whereas projections at the time of signing the ELDO Convention had been placed at £70m, by 1964, updated estimates had skyrocketed to £404m.[148] For member states that joined in part to benefit from cost-savings, this was frustrating. While the individual stages of *Europa* were relatively successful on their own (in fact, *Blue Streak* never once failed), when combined as a completed rocket, neither *Europa I* nor the subsequent *Europa II* ever completed a successful flight.[149] While the American and Soviet programs' own high rate of rocket failure suggested this was to be expected, the 100%

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[142] Madders. 1997. p. 50.
[143] Bonnet and Manno. 1994. p. 13.
[144] Madders. 1997. p. 44.
[145] (The chosen name for the combined English, French and German stages. It was also known as ELDO A, ELDO B (Europa II), and ELDO C (Europa III) for each subsequent iteration of launcher design.
[146] Madders. 1997. p. 44.
[147] Sheehan. 2007. pp. 78-9.
[148] Madders. 1997. p. 114.
[149] Bonnet and Manno. 1994. p. 13.

failure rate only further damaged some members' (particularly Britain's) already strained

view of *Europa's* utility.[150]

By 1964, "the British Conservative government which had promoted ELDO was no

more; the Labour Party had won the British general election."[151]  The possible availability of

American launchers led the administration to question the high costs of development.[152]  The

gap in technology was also present in the minds of the French.  But instead of considering

becoming a customer of the US, they only hardened their resolve to catch up.  In 1965, the

French announced they wanted to immediately halt construction of *Europa I* in favor of a

more powerful *Europa II* design.  To accentuate their insistence, they withdrew their funding

until a decision could be made.  The other members were not keen on the idea.  They felt

more experience was necessary with *Europa I* prior to planning the next generation, and

believed production time would extend unreasonably into the 1970s.[153]

Up until 1967, the British rationale for participating in ELDO was to play the part of

"good European," and to use its technological supremacy to cement its place in a more

integrated European community.[154]  It was clear from the start that the UK was not benefiting

technologically from the ELDO partnership.  In fact, their own national capabilities could

have permitted the British to develop a comparable heavy launcher independently by

combining *Blue Streak* with another, newer British rocket, *Black Knight*,[155] though,

admittedly, at a premium cost.  "A seven-year policy of inducement and patience, had,

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[150] Ibid.
[151] Madders.  1997.  pp. 115-6.
[152] Ibid.
[153] Hill.  2001.  p. 144.
[154] Sheehan.  2007.  p. 80.
[155] Kirge and Russo.   2000.  p. 110.

evidently, left the French President unmoved,"[156] for after a fresh UK application to join the EEC in May, 1973, it was vetoed in November of the same year by the de Gaulle government.[157] The UK had mistaken France's eagerness to cooperate on technological projects as a signal de Gaulle was opening to economic cooperation with the British as well. In truth, de Gaulle had maintained the distinction out of fear that British economic cooperation would be a pathway for American interference.[158]

Regardless of errors in perception, the French decision crippled British support for ELDO. As early as 1965, the UK Wilson government had been set against continued participation in ELDO. Two papers on British space policy of the time, the Bondi Report and the Space Policy Review, both concluded continued British participation in ELDO was inadvisable. The reports predicted progressive cost increases, a theory supported by French discussion of the need for a yet more powerful launcher, *Europa III*, to meet communications satellite demands.[159] The Wilson government had only held off from publicly announcing the desire to withdraw until such a time when it would be less politically damaging to do so. The French rejection in 1967 served this purpose.

The Bad Godesberg meeting in 1968 marked the beginning of the end for ELDO. Gloom pervaded the conference. Said Belgian Minister Theo Leférve, "I have the gravest fears for the immediate future of the space institutions and programmes we have supported and conducted until now at such great expense."[160] Several months ahead of the November meeting, the British had, in April, announced they "would continue to make *Blue Streak*

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[156] Madders. 1997. p. 135.
[157] Ibid.
[158] Kirge and Russo. 2000. pp. 100-1.
[159] Harvey, Brian. 2003. p. 45.
[160] Kirge and Russo. 2000. p. 347.

available until 1976, but without a financial contribution."[161] The British felt it unwise to directly compete with the Americans, who were offering the same services *Europa* had yet to fulfill at a lower per-use cost, absent development expenses.[162]

Predictably, the other ELDO members were not so willing to release the British from their obligations, and in response, the British claimed rights under Article IV of the ELDO Convention, declaring themselves "not interested" in *Europa II* development, subsequently blocking approval of the 1969 ELDO budget.[163] Compounding ELDO's headache, Italy too declared itself not interested,[164] having negotiated a much more nationally-beneficial deal with the Americans (resulting in the highly successful *Sirio* program, launched in 1977).[165] Ultimately, France, West Germany and the other ELDO members gave in to UK demands, reducing the expected British financial contribution from 27% to 5.245%, payable in a one-time deposit in 1970, and released Italy and Australia from any further obligations on the launcher.[166] Politically, Bad Godesburg was a success, for it prevented a complete breakdown of European cooperation in space.[167] Still, the loss of British and Italian finance for *Europa II* was a serious blow. The attractiveness of American launcher services cast further doubt on the utility of the organization.

By 1973, the Germans, who long supported European launcher independence, began to question their convictions. The high costs of launcher development coupled with the repeated failures of the *Europa* rockets made the economics of cooperating with the

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[161] Harvey. 2003. p. 47. Italics in original.
[162] Ibid.
[163] Madders. 1997. p. 138.
[164] Ibid, p. 139.
[165] Ibid, pp. 135-6.
[166] Ibid, p. 139.
[167] Ibid, pp. 137-8.

Americans sensible.[168]  West Germany became much more interested in pursuing the

*Spacelab* project, and was willing to let *Europa* fall by the wayside.[169]  The council convened

two more times.  In the later meeting, the French proposed a simplified version of *Europa III*.

It was rejected.[170]

The *Europa II* project was officially cancelled in May, 1973, and its assets were

transferred to ESRO.[171]  "The 72nd and last meeting of the ELDO Council was held on 30

May 1975 with E.A. Plate (NL) in the chair.  He drew a balance sheet of the history of the

organization, he thanked all who had done so much for ELDO, and he paid tribute to the

dedication the French had shown for space affairs … Soon afterwards Plate added,

'Gentlemen, this is the end of my speech.  This is the end, I believe, of the meeting of the

ELDO Council."[172]  ELDO was dead.

As ELDO proceeded into the second stage of its norm life cycle, socialization,

historical events unfolded in a way that suggested to member states that perhaps proceeding

as Europe was not the best approach to developing a launcher after all.  There were state as

well as European interests pursued by ratifying the ELDO Convention, but as time went on,

the sacrifices required at the national level for the sake of the European program began to rise

to intolerable levels, particularly for the British.

The UK joined ELDO not just for sake of cost- and face-savings regarding *Blue*

*Streak*, but also as an overture to join "Europe" economically.[173]  While there was money to

be made in so doing, the conclusion among the British was still "it is in our interest to

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[168] Kirge and Russo.  2000.  p. 368.
[169] Madders.  1997.  p. 164.
[170] Harvey.  2003.  p. 49.
[171] Sheehan.  2007.  p. 81.
[172] Kirge, Russo, and Sebesta.  2000.  p. 17.
[173] Harvey.  2003.  p. 39.

proceed as Europe." The UK was willing to make significant financial and technological transfers to persuade mainland Europe they could be "good Europeans." When de Gaulle blocked their EEC application, British interests changed.

Told by the French the "European" economy did not want the British, the Wilson government saw no reason to proceed as Europe in a technological context.[174] This decision had a significant impact on the structure and rules of the organization. The British initially chose to remove themselves completely from the structure created by the ELDO Convention, and in so doing, forced a number of rearrangements. The importance of British technology and finances pressured the other agents (France, Belgium, etc) present in the structure to reform the rules constitutively to enable continued function of the structure. Italy and Australia piggy-backed on the bargaining power of Britain, and got the remainder of the member states to alter the structure and rules to excuse them entirely. ELDO emerged from the 1969 negotiations battered, but alive. This qualified success should not be ignored. Even after their rejection from the EEC, Britain decided that proceeding nationally as part of Europe, however cursorily, was in its interest.

The US space program, however, as a constitutive agent, influenced the interests of individual European states, resulting in changes to their structure, behavior and norms. The superior, functioning technology offered by NASA was an opportunity for individual European states to fulfill their space ambitions without the expense of independent technological development.[175] For Italy, a resource-constrained state, this option met their national interests at a lower cost and quicker return than was promised by the developing

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[174] Ibid, p. 47.
[175] Kirge and Russo. 2000. p. 352.

European system.  The Italians decided, in the window afforded by the British threat to withdraw, that to proceed as Europe was *not* in the Italian national interest.  Similarly, the Germans were more attracted to the prospect of bilateral cooperation with the US on *Spacelab* than they were in continuing to pursue *Europa.*  While the Germans were supportive to the idea of "Europe," the costs of continuing *Europa* did not justify continuing on as Europe when proceeding bilaterally with America was more beneficial.

As a result, the norm that European states should proceed as Europe in space activities was overtaken by the norm of economic sufficiency.  The norm life cycle in the case of ELDO collapsed, and the launcher development member states returned to national and bilateral structures of space launcher activity until the advent of *Ariane*.

*The American influence*

The relationship between the European and American space programs transformed over time from one of dependence to independence.  Reimar Lűst, a former director of the ESA, argued there were three periods of Euro-American partnership.  In "the first, from the early 1960s to the early 1970s, the US exercised 'tutorship' of Europe.  During the second, which lasted until the beginning of the mid-1980s, Europe became America's 'junior partner' while during the third, and current, phase there has been both 'partnership and competition.'"[176]

After Sputnik, the United States sought European partnership both to stay ahead of the USSR in projects with either military or prestige value and to solidify the American-

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[176] Ibid, p. 375.

European alliance.[177]  At first, the superiority of American space technology and the

availability of launcher services made NASA an alternative to European launcher

independence.  In a 1959 international meeting of space scientists at the Hague, "the

American delegate announced that his government, through NASA, would be willing to

launch suitable experiments proposed by scientists from other countries.  The technical

support of NASA's experience engineers was guaranteed."[178]  Indeed, in 1964, NASA went

so far as to offer to launch the first two satellites of the newly formed ESRO for free.[179]

During the ESRO and ELDO years, the absence of a European launcher forced ESRO

to utilize American services for all of their scientific and communications satellites.  While

this was bothersome to independence-minded Europeans like the French or Belgians, several

European countries were only too happy to gain experience in space science through bilateral

cooperation with NASA.  The Italians jumped at the offer from NASA to cooperate in

scientific endeavors, and in 1962 signed an agreement forming the San Marco project, the

first all-European satellite to orbit the Earth.[180]  The Spanish also benefited from American

funds, and agreed to host tracking stations used by NASA researchers.[181]  Of all the

European powers, the United Kingdom was probably the most receptive to American

overtures up until the 1970s, as the British, more than other Europeans, tended to privilege

economics over the intrinsic value of launcher autonomy.[182]

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[177] Ibid, p. 378.

[178] Ibid, p. 67.

[179] Ibid, p. 75.

[180] Ibid, p. 11.

[181] Dorado, Jose M., Bautista, Manuel, and Pedro Sanz-Aranguez.  2002.  "Spain in Space:  A Short History of Spanish Activity in the Space Sector."  *ESA Publications*.  Noordwijk: Netherlands.  p. 3.

[182] Kirge and Russo.  2000.  p. 351.

This all began to change, however, as Europe entered the field of communications satellites. After the Intelsat Agreement signed in August, 1971, the Americans were still willing to provide American rockets to launch European communication satellites, but reserved the right to refuse services wherever European satellites might compete directly with American satellites.[183] The conditionality of which European satellites the Americans were and were not willing to launch made even the British wary. By the end of 1970, "feelings began to be aired in the press that the USA was 'trying to lure Europe into curtailing the development of launchers and communications satellites in order that she will continue to be dependent on the US for these items.'"[184]

Although the United States was open to cooperation, it too had interests to defend. The limits to what NASA was willing to do for European space efforts made it clear to ELDO and ESRO members that America could not be relied upon for 100% of its launcher needs. Even at the onset of ESRO and ELDO, European space policy makers were cool to the idea of dependence on America. In 1961, however, there was little choice unless the scientific program was willing to wait for a European launcher,[185] or to rely on the Soviets, which it was not. There were several points of friction throughout the 1960s and early 1970s which kept the argument for proceeding as Europe alive.

In 1966, NASA and ESRO signed a Memorandum of Understanding[186] regarding the future launching of ESRO scientific satellites. Through the negotiations, one major point of contention arose. NASA required that data retrieved from any European satellite launched

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[183] Madders. 1997. p. 146.
[184] Kirge and Russo. 2000. p. 408.
[185] Ibid, p. 43.
[186] A Memorandum of Understanding is a document that does not carry the weight of a treaty, but for the Europeans, carries a sense of legal binding. It is a formal contract outlining the responsibilities of each involved party.

by an American rocket must be shared with NASA. Citing intellectual property rights, Europe contested, arguing that normal practice dictated Europe would disperse scientific data it collected of its own volition.[187] In 1969, NASA proved to the French and Germans that they could not be relied upon to provide launcher services where European commercial satellites would compete with American ones. When France asked if NASA would launch the Franco-German *Symphonie* satellites, NASA, after speaking with the US Department of State, "replied that it would launch the two satellites only if their experimental (as opposed to operational) character could be demonstrated."[188] Nor was America, in 1970, willing to make Europe a full partner in the decisions to be made regarding post-Apollo plans for a Space Shuttle and Space Station. Europe would only retain decision making power where purely European parts or subcontracts were concerned. "Overall responsibility for management, however, 'would necessarily rest with the US.'"[189] The combination of launcher payload limitations, and a junior-partner status in the post-Apollo program turned European favor in the direction of a European capability.[190]

To be fair, there were legitimate reasons for many of the barriers to cooperation the United States erected between itself and Europe. NASA limitations to which communications satellites it would and would not launch for Europe was heavily influenced through lobbying from the US communication satellite industry.[191] Politically, NASA felt it would damage itself by going against these interests. Further, the Cold War and concerns for American national security were often the cause for what European space powers considered

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[187] Kirge and Russo. 2000. p. 383.
[188] Ibid, p. 392.
[189] Ibid, pp. 403-4.
[190] Ibid.
[191] Kirge, Russo, and Sebesta. 2000. p. 450.

to be unreasonable inflexibility.  NASA Administrator Webb felt that "NASA should 'be in a position to reply to any question about its activities for ESRO' – and, more precisely … satisfy concerns about the Agency's ability 'to be in a position to report to Congress and the people that it does, in principle, have full access to data acquired by any satellite launched from United States territory.'"[192]  From this angle, American insistence that European scientific data be made available was less a power-play than it was a concern for accountability.

Even if political concerns had not manifested, it may have been impossible for NASA to maintain European dependence on the long term regardless.  The Space Shuttle fleet, which had been intended to become the "cost effective" replacement for older, expendable US launchers,[193] came nowhere close to achieving the scales of economy its designers had envisioned for it.[194]  Compounding matters, the *Challenger* tragedy in January, 1986 grounded the American fleet for years.  As a commercial launcher service, NASA would not have been able to meet European demand if it wanted to.

The restrictions placed on services available, in combination with the unavailability of American services, pushed the Europeans on the path to launcher independence.  By the late 1980s, the *Ariane* launcher program would meet and surpass the American capability.[195]

Constitutive elements in America aided in European states' decision to proceed as Europe.  NASA's interactions with local agents including the communications satellite lobby, the Department of Defense, the Department of State, and Congress constructed the

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[192] Ibid, p. 383.
[193] Deam, Dirk.  1999.  "Technology in Search of a Need."  In *Public Space: Exploring the Political Dimensions of the American Space Program,* Deam, Dirk.  Unpublished.  No page number.
[194] Ibid.
[195] Harvey.  2003.  p. 193.

American space administration's interests in favor of constraining the constitutive rules which permitted cooperation with European states. NASA genuinely wished to pursue cooperation with Europe,[196] but the barriers to cooperation it erected in the defense of its perceived interests made the American alternative to a European launcher less and less attractive to European states. The perceived benefits of cooperating with the Americans that helped to bring down ELDO were not as high as initially imagined by most European states.

The structure considered appropriate among European states to pursue European space interests swung from Europe to America and back between the 1960s and early 1970s. Early on, the Europeans were forced to rely structurally on the Americans for lack of options, but they perceived this reliance as intrinsically disadvantageous, and engaged in behaviors favoring the idea of "Europe." This resulted in ELDO and ESRO, and pushed the norm life cycles for both institutions into the second stage. Although ESRO performed well, the cost-savings and supposed availability of American launchers led European states (save the French and Belgians) to believe that depending on the American launcher structure was preferable to a European approach. This idea contributed to the disintegration of ELDO, and the second life cycle stage for ELDO failed. However, when activities in the American structure turned out to be constrained by rules prohibitive to European interests, European states were pushed back to the perception that proceeding as Europe to secure launcher access best served their interests.[197] The first stage persuasion process was begun again, and ultimately, the result was *Ariane*.

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[196] Kirge and Russo. 2000. pp. 378-9.
[197] Ibid, p. 408.

The Americans facilitated the construction of an "other" when the European public began to believe NASA was attempting to lure Europe into a cycle of dependency. As a perceived antagonist to European interests, America provoked a *European* response, for the individual national programs were still incapable of responding individually. Entering the 1980s, the American space launcher structure no longer had the capacity to meet European demand. Not wishing to become dependent upon the Soviets, European states had no other choice than to proceed as Europe.

ELDO had failed, but American influence on the long-run helped to resurrect the norm which initially formed the basis for the doomed organization. The limits to US cooperation in space led to the belief that the American launcher structure was insufficient to meet European interests, which triggered a change in the interests of European states, which led to a reorganization of the European space structure, which required new rules to regulate activities, which built common European experiences amenable to an invented history, and so on. Each link in the chain of events helped to persuade European states to behave *as* Europeans, contributing to European collective identity.

*Communications satellites and the push towards ESA*

"For the general public, the era of space communications was actually opened on 10 July 1962, when a Thor-Delta rocket launched Telstar I, the first real-time transponder, designed and built for NASA by the American Telephone and Telegraph Company (ATT). Two weeks after launch this satellite provided the first live broadcast of television images across the Atlantic, and less than one year later, in May 1963, Telstar II established an

analogous connection over the Pacific between the USA and Japan."[198]  At the time, ELDO

and ESRO were both still in the process of formation.  Europe was forced to enter the

communications satellite field very late in the game.[199]  It was not until the end of 1966 that

ESRO accepted a request from the European Conference on Satellite Communications

(CETS) to begin a study on the feasibility of developing and launching communications

satellite technology for Europe.[200]  The process of building a communications satellite policy

would take five years owing to the political bargaining between "international relations,

industrial policy, defense of economic and commercial interests, [and] control of areas of

cultural influence,"[201] for which there were no easy solutions.

Communications satellites would bring to a head the question of how much farther

Europe was willing to integrate.  The first instinct of ESRO member states was to pursue

telecommunication satellites via national or bilateral programs.  Toward the end of the 1960s,

the French announced they would begin design and construction of a satellite, similar to the

CETS project then underway via ESRO.[202]  The Germans began work on *Olympia*, designed

to transmit images of the 1972 Munich Olympic Games, but later combined this with the

French into a single program named *Symphonie*.[203]  The Italians pursued *Sirio* with the

Americans.[204]  British doubts over the utility of the CETS project led them to pursue "an all-

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[198] Ibid, p. 257.
[199] Ibid, p. 263.
[200] Ibid, p. 253.
[201] Ibid, p. 254.
[202] Ibid, p. 274.
[203] Ibid.
[204] Ibid.

British satellite in the framework of the Anglo-American military space communications system Skynet."[205]

A pair of reports came out between 1966 and 1969 which would call attention to the need to coordinate Europe's space projects. The first, known as the "Causse Report," made "review of European space activities [then] under way, recommending a fusion of ELDO and ESRO"[206] into a single European space agency. A subsequent committee, chaired by G. Puppi of Italy, met in 1969 and developed the concept further.[207] Of the member states, this concept was well received by France, Belgium and Germany, who each went to extraordinary lengths to see it happen, particularly France.[208] Whereas the other member states felt that ESRO should return to a limited, purely scientific organization, France, Belgium and Germany believed ESRO should also take on the onus of applications satellites.[209] Following the rest of Europe would mean having to bear the cost of national space programs, ELDO, ESRO, and now, state-level applications satellites. To be competitive with America and the Soviets, the three countries felt that Europe required a coherent space policy, and they let their colleagues know in a big way.

At a 1970 European Space Conference[210] meeting, France made its feelings known,

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[205] Ibid, pp. 273-4.

[206] Harvey. 2003. pp. 54-5.

[207] Ibid.

[208] Ibid.

[209] Ibid.

[210] Desire for a more coherent European space policy appears before the Causse Report. The European Space Conference (ESC) appears in 1966 as an informal committee consisting of ELDO, ESRO and CETS member states (Madders. 1997. p. 125) The ESC was designed to "…examine the fusion of existing space institutions." Though it would keep close ties with both ELDO and ESRO, and would offer policy suggestions, it had no power over the pair of institutions. (Ibid, p. 124) The ESC served as the forum for resolving national disputes that neither ESRO nor ELDO had provided for in their conventions. Already by 1967, the ESC had successfully mediated "…budgetary and programmatic disputes that were hampering progress in ELDO and ESRO." (Sheehan. 2007. p. 80) An important complaint emerging from the ESC's 1967 Rome Conference was its "deficit of authority." The ESC could make policy recommendations that would make sense for ELDO, ESRO, and CETS together, but each of the three organizations would then adopt the suggestions piecemeal

and "[t]o put teeth into these proposals, France then signaled her intention to withdraw from

ESRO in 1972 if a suitable compromise embodying her key requirements could not be

found."[211]  The stiff French demands infuriated the other members.  "All agreed that reforms

were needed, but they resented the pressure being put on them by a major participant, and

even threatened to retaliate in kind."[212]  The ESC meeting disbursed with the agreement that

negotiations would begin to settle the dispute no later than June, 1971.[213]

      The disintegration of ESRO was averted (slightly behind schedule) in July, 1971.

Exactly what programs would be pursued remained unsolved.  However, the policies of

*rapprochement* to mend the rift between France and the UK led to the acceptance of the

British into the EEC.  Heads had cooled somewhat since the embattled 1970 meeting, and the

Council agreed to reduce the mandatory contributions to the scientific programs of ESRO to

make way for application programs, which were made optional for member states to

participate in.[214]  The French worried that "optional programs" would damage European

coherence, but smaller countries insisted they could not afford mandatory application

programs,[215] and so the French yielded, withdrawing their threat to leave ESRO.

      The outcome of the 1971 ESC meeting in the Hague was positive, resulting in the

"first package deal" which placed application satellites under the purview of ESRO, while

reducing the science budget.[216]  The subsequent 1972 meeting was equally productive,

resulting in the "second package deal," which proposed a new set of programs "to overcome

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according to their institution's preferences. (Madders.  1997.  p. 125)  They believed stronger central
management would solve this problem
[211] Kirge and Russo.  2000.  p. 363.
[212] Kirge, Russo, and Sebesta.  2000.  p. 2.
[213] Ibid.
[214] Ibid, p. 158.
[215] Ibid, pp. 158-9.
[216] Bonnet and Manno.  1994.  p. 20.

the disputes between Britain, France and West Germany. A new launcher (Ariane) would be developed by France; West Germany would lead the development of Spacelab as the European contribution to the post-Apollo NASA programme, and Britain would produce MAROTS, a maritime communications applications satellite."[217] Each country would pay for the bulk of their national project, and make smaller contributions to the other two.[218]

With the dust settled, design of a unified European Space Agency was free to proceed. The ESC intended to have a completed document presented and signed by 1974, but domestic politics in the member states slowed down the process, and a draft of the ESA Convention acceptable to all parties did not emerge until 1975.[219] Signing of the ESA Convention was opened from May to December of 1975. According to the rules of the document, "All ESRO States had to ratify to bring the Convention into force (Art. XXI)."[220] Sweden was the first to sign on April 6, 1976, and France was the last on October 30, 1980.[221] The ESC's final meeting was in 1977, after which time the ESA assumed its predecessor's role.[222]

There were two norm entrepreneurs which appeared in the final leg of the first stage of the norm life cycle which advocated a European approach to space activities. The first to appear was the ESC, which acted in the capacity of an epistemic community. The European Space Council essentially took the position that the existing European space institutions were not European enough. ESRO, ELDO and (1960s-) CETS were each European institutions in their own rite, but there was a serious lack of coordination between the organizations (for

[217] Sheehan. 2007. pp. 82-3.
[218] Ibid.
[219] Madders. 1997. p. 172.
[220] Ibid, p. 212.
[221] Ibid.
[222] Bonnet and Manno. 1994. pp. 10-1.

which the ESC was created to address[223]).  Each institution behaved outwardly as Europe, but

differing interests between the organizations made for multiple Europes.  This was contrary

to how the ESC thought European states ought to behave in space activities.  Initially, the

ESC had a difficult time persuading European states, for the Causse and Puppi reports

coincided with the rising national disputes regarding Europa, and attractive offers of

assistance from the American program.  In truth, the second stage of norm development

within ESRO had not yet failed.  There had been active debate surrounding the utility of

ESRO,[224] but debate did not come to a conclusion as it had for ELDO.  The ESC, however,

was attempting to end ESRO's second stage by claiming ESRO's brand of European

behavior did not go far enough.  Initially, this claim fell on deaf ears, but the ESC's

conclusions had reinforced the convictions one very important state – France.

France acted as a norm entrepreneur which enjoyed an advantage most entrepreneurs

do not – the power of coercion.  The French took a risk and threatened to withdraw from the

otherwise successful ESRO if their demands for greater European coherency in space were

not met.  The French move increased the agency of the ESC, which after 1970, became

responsible for preventing European space cooperation from collapsing.  The Council applied

the lessons of ESRO and ELDO to adjust the structure and rules of the existing space

institutions.  Many of the most successful constitutive rules present in ESRO were extended

to the new European Space Agency.  *Juste retour* stayed on as the space industrial agreement

between member states, and the practice of distributing facilities was carried over into the

ESA Convention as well.  The important innovation inspired by ELDO was the distinction

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[223] Sheehan.  2007.  p. 80.
[224] Harvey.  2003.  pp. 54-5.

between mandatory and optional projects. Structurally, ELDO had collapsed on its own, and its assets were combined with ESRO's. The significant change in structure was the agreement to coordinate rather than continue to integrate national programs.[225]

The ESC had succeeded in halting ESRO's norm cycle by discrediting it as insufficient. However, it replaced the space science process with its own, and picking up the pieces of ELDO, initiated a final first stage to persuade European states to adopt a reformed version of the appropriateness of the European approach to space. By 1973, the tipping point had been reached. Fifteen years of persuasive (and coercive) efforts among norm entrepreneurs including Amaldi, Auger, (late 1950s-) Britain, France and the European Space Council resulted in the stable adoption of the idea that European states ought to proceed as Europe in space activities. While national programs had actually been enhanced by the ESA Convention,[226] the net effect was an increase in the European character of member state activities. In addition to the mandatory projects, which required frequent cross-border interactions among member, the new constitutive rules of ESA worked to prevent overlap between national projects.[227] The work of one member increased the collective knowledge of all members. Each European achievement added yet another layer to a common European history, further legitimizing the identity of "we Europeans."

With European space activities finally institutionalized in a single, stable organization, the process of socialization among other states and society was free to commence.

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[225] Sheehan. 2007. p. 83.
[226] Ibid.
[227] Ibid.

**CHAPTER FOUR: European space policy and norm socialization**

Since the foundation of ESA, European space institutions have slowly but surely

socialized the idea that the appropriate approach to space science for European states is as

Europeans.  The historical narrative of the ESA experience shows evidence of this

socialization, as new states have willingly conformed to ESA standards in order to join the

organization.  Recent attempts to make ESA relevant to the everyday European have moved

the European approach towards the third stage of internalization.  The more banal European

activity becomes, the greater it becomes taken for granted.


*ESA burns brightly*

Many of ESA's early activities were defined by a push towards independence in

spaceflight.  Europe's contribution to the American-led Space Station Freedom (SSF), the

scientific research module *Columbus*, intended to achieve just this in the field of manned

space flight.  Still lacking the necessary technical experience, however, Europe looked again

to America to help close the gap.

From the start of America's post-Apollo program, NASA intended the Space Shuttle

and an orbital Space Station to have a symbiotic relationship with each other.  The Shuttle

would build the Space Station, and the Space Station's activities would justify the Shuttle.[228]

The resources available to NASA, however, only permitted one to be built at a time.  Thus,

when the shuttle was complete, and had been in successful operation for three years, the call

to build a space station was expected.[229]  The Americans wanted the Space Station to be an

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[228] Deam.  1999.  No page number.
[229] Harvey.  2003.  pp. 309-10.

international project very early in its conception.  Not only would it avoid needless

duplication in Europe, but it would improve America's cooperative credentials and reduce

the costs of development.[230]

President Reagan committed the country to the Space Station in 1984, which he

named *Freedom*.  Almost immediately, the Europeans were invited to participate.[231]  ESA

was initially enthusiastic about cooperating with the Americans on *Space Station Freedom*

(SSF).  In 1984, "ESA had due cause to feel optimistic about the future.  The first of the

French-led *Ariane* rockets was now launching satellites on a commercial basis, a West

German scientist had flown on the first *Spacelab* mission, and France had started work on a

larger rocket to launch the *Hermes* space plane.  Europe's strategic plan to be the third player

in human spaceflight seemed to be on track.  Participation in the station was regarded as an

ideal means of addressing the learning curve."[232]  The Europeans headed into SSF with a full

head of steam.

The West Germans and the Italians drew up a proposal for the ESA Council for

Europe to build a scientific module, which they named *Columbus*.  Having recently come off

a positive experience with *Spacelab*, the Germans and Italians were fully behind the

project.[233]  The Rome meeting of ESA European Ministers officially confirmed ESA's

intention to take part in the American-led space station.[234]  Perhaps the primary motivation

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[230] Ibid.

[231] Harvey.  2007.  p. 17.

[232] Harland, David M., and John E. Catchpole.  2002.  *Creating the International Space Station*.  Chichester, UK: Praxis Publishing.  pp. 90-1.

[233] Collins.  1990.  p. 153.

[234] Collet, Jacques.  1984.  "ESA Space Station Planning."  In *Europe/United States Space Activities*, eds. None named.  Escondido, CA: Univelt.  p. 102.

behind ESA's support for *Columbus* was its long term ambitions for independence in manned

space flight. *Columbus*, for ESA,

> "was only part of a much wider programme being developed by ESA and the more
>
> enthusiastic member governments to give Europe total autonomy in manned and
>
> unmanned space activities by the end of the century. The *Columbus* programme was
>
> one of three pillars of this scheme, the other two being a radically redesigned *Ariane*
>
> rocket and a mini-space shuttle, *Hermes*, to give European astronauts independent
>
> access to space."[235]

This intention manifested in *Columbus'* design. Though the research module would start out

attached to the station, and use its resources, "ESA stipulated that it might later detach it, in

order to integrate it into an independent European facility."[236]

Progress on SSF and Columbus, however, came to a standstill due to several

problems. The loss of Challenger and subsequent grounding of the American space shuttle

fleet cast doubts on whether the project would go forward at all.[237] To make matters worse,

the Department of Defense suddenly decided in 1986 that it wanted SSF to be available to the

US military if it decided to conduct any national defense-related activities. This was a

problem with Europe, which liked neither the prospect their access to SSF could be limited

by the DoD, nor that their organization, dedicated to peaceful pursuits, could be associated

with military research.[238] The issue was left half-resolved. In 1988, the DoD agreed to

[235] Collins. 1990. p. 154.
[236] Harland and Catchpole. 2002. p. 102.
[237] Ibid.
[238] Thompson, Wayne C., and Steven W. Guerrier. 1989. *Space: National Programs and International Cooperation*. Boulder, CO: Westview Press. p. 27.

access to the station for any national defense activities that did not involve the testing of weapons.[239]

Trans-Atlantic cooperation on SSF nearly broke down over station management issues. In 1987, "the US government was proposing that while the station should be managed by a multilateral board including all interested parties, NASA should chair it and have the power to make decisions where a consensus could not be achieved. This amounted to giving NASA the right to override European and Japanese objections on use of the station."[240] The Europeans were prepared to allow NASA to handle emergencies, but wanted all decisions to be made by consensus. This problem, too, was left in the air, with all parties agreeing to continue on a basis of "genuine partnership."[241]

As the Cold War came to a close, so too did much of the American rationale for SSF. The end of the 1980s saw the Americans in a budget shortfall, and financial constraints forced constant redesigns of the station,[242] which, inexorably, forced redesigns for *Columbus* as well.

Structural changes in the American space program as it began to pursue a space station opened up opportunities for ESA to expand its own structure. Although conflicts over communications satellites had been an irritant to the US-European relationship, *Spacelab* had been positive, and there was still a great deal ESA could learn from NASA. European states decided it was in the national and European interest to continue cooperating with America, though this time they would approach the US as a single agency, rather than as individual states. The European approach to space activities had been re-adopted by ESA member

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[239] Collins. 1990. p. 173.
[240] Ibid, p. 161.
[241] Ibid.
[242] Sheehan. 2007. p. 177.

states, and for the first time in the history of European space history, commitment to that

norm appeared stable.  The norm life cycle had entered its second stage under a unitary

organization, and interactions with NASA served to push the debate surrounding future

coordination in the direction of internalization.

Once again, Europeans found themselves in a conflict over rules that were

constitutive to cooperation.  Although the conflict's resolution ended up favoring the

American position, NASA had again succeeded in reinforcing the idea that Europe was best

off providing for itself where possible.  The deepening of America's categorization of

"other" had a positive effect on the socialization of the appropriateness of "Europe" because

it demonstrated that only a European approach could fulfill European state interests.

European collective identity benefited as well from the early accomplishments and ambitions

of ESA.  The success of *Ariane* and *Spacelab* coupled with the ambitious designs for

*Columbus* were cause for excitement for the potential benefits to European reputation.  The

list of common European experiences which could be used to invent a mythos of European

identity grew considerably.


*ESA "harmonization" and expansion*

In contrast to the experience of ELDO and ESRO, the pattern of integration among

European space states slowed, and was replaced by a process of increased *coordination* under

ESA.  Article II of the ESA Convention stated: "The purpose of the Agency shall be to

provide for and to promote, for exclusively peaceful purposes, *cooperation* among European

States in space research and technology and their space applications, with a view to their

being used for scientific purposes and for operational space applications systems."[243]  Short

of seeking a unified space policy, ESA chose to "harmonize."[244]  "Although the work of ESA

represent[ed] a significant contribution to the European integration process, the Agency itself

[was] not engaged in the process of integration as such.  Rather, its purpose [was] the

*harmonization* of European policies, so as to avoid unnecessary overlap or duplication of

effort, while making possible larger-scale projects that would be beyond the resources of any

single state."[245]  In 1980, Erik Quistgaard, the ESA Director General of the time, proposed

some main operating principles for the Agency.  While he believed ESA should primarily

behave as a research and development organization, he also believed it should coordinate

national efforts to avoid redundancy, and chose projects that were helpful to European

industry in general.[246]

ESA institutionalized several mechanisms meant to anticipate and prevent conflicts of

state interests, and in so doing, preserved them.  The differentiation between "mandatory"

and "optional" projects gave member states some choice in which projects they would

pursue, while maintaining a worthwhile core program.  The mandatory programs, the core of

the Agency's activities, consisted chiefly of the scientific projects, and the cost of common

facilities and administration.[247]  The required contribution from each member state was a

function of their GNP.[248]  Particularly for the larger member states, the amount spent on the

mandatory programs was only a fraction of their total expenditures.  Most of their resources

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[243] ESA.  "ESA Convention."  Online.  Last updated: Unknown.  Accessed: July 6, 2009.
http://www.esa.int/convention/  Italics added.
[244] Sheehan.  2007.  p. 83.
[245] Ibid.  Italics in original.
[246] Kirge, Russo, and Sebesta.  2000.  p. 65.
[247] Bonnet and Manno.  1994.  p. 25.
[248] Madders.  1997.  p. 189.

were spent on the "optional," or purely national programs. The optional activities

mechanism was an extension of the "package deal" arrangements provided for by the ESC

after the ESRO/ELDO crisis, circa 1970. The optional activities typically consisted of

payload projects, such as application satellites, or the *Ariane* rockets, which only a minority

of member states chose to partake in.[249]

Beyond preventing members from having to pay for projects they did not care to

support, the Agency found the optional projects "allowed a form of 'market' culture to

develop, whereby Member States regularly haggle[d] among themselves, trading industrial

interests in proposed programmes against financial stakes placed by their fellows."[250] The

optional programs were the chief activities among ESA members, making up roughly 80% of

the space expenditures among the member states.[251]

While there were fears that allowing optional programs would drive space activities

back to the state level, the opposite has been observed. "The proliferation of optional

programs has, nevertheless, made ESA a very lively and enterprising organization, and,

somewhat paradoxically, has reinforced the cohesion of its Member States."[252] The optional

programs permitted the member states to pursue their interests, while providing for an

international option among states who sought similar avenues of research or application.[253]

ESA's mandatory programs were intended to compliment, not compete with national

projects, and vice versa.[254]

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[249] Ibid, pp. 189-90.
[250] Ibid, p. 194.
[251] Bonnet and Manno. 1994. pp. 30-2.
[252] Ibid, p. 64.
[253] Ibid, pp. 66-9.
[254] Ibid, p. 62.

ESA has acceded seven countries since the signing of its Charter. The Agency has been faced with the dilemma of how it can expand its membership without sacrificing the efficacy of the original institution.[255] The ESA Convention provided few mechanisms to guide the accession process. While it made very clear that cooperation was encouraged, and would make ESA stronger, acceding new members would only be possible through unanimous consent of current members.[256] This problems caused by a lack of accession rules became keenly apparent in 1999, when Portugal sought accession. The past accesions of Norway and Austria, as well as the association of Finland in the 1980s and 1990s set the precedent that candidate countries would first don the status of "associate member" prior to accession, even though no such precondition existed in the ESA Charter.[257] Portugal, in comparison, had cooperated in the past with ESA on space projects, but had never been an associate member. Thus, when Portugal applied for full membership,

> "For the first time, a non-member State, which had no links with ESA via a
> Cooperation Agreement and was thus less familiar with Agency procedures and
> programmes, was making a 'direct' request to accede to the Agency – in full
> compliance, it must be said, with the terms of the ESA Convention. This was bound
> to raise particular problems, especially regarding the inclusion of Portuguese firms in
> activities developed by the Agency and the application of industrial policy."[258]

ESA approved Portugal's accession in 2000, though with concerns how Portugal would be integrated.[259]

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[255] Bally, Philippe, Béquignon, Jerome, Arino, Olivier, and Stephen Briggs. 2005. "Remote Sensing and Humanitarian Aid – A Life-Saving Combination." *ESA Bulletin*. No 122. p. 53.
[256] Ibid, p. 50.
[257] Ibid, p. 51.
[258] Ibid, p. 51.
[259] Ibid, p. 51.

To assuage concerns how the less developed country could be assimilated into the ESA framework and industrial policy, it was decided to have Portugal go through a probationary period, as Finland had in the past.[260] For six years, the money Portugal paid towards mandatory programs would be kept separate from the general budget, and spent entirely on the development of Portuguese firms and infrastructure. At the end of the six years, Portugal would theoretically have caught up with the established ESA countries. At that time, it would be afforded equal access to the common scientific programs, and could benefit from *juste retour*.[261] Many of the expansion countries sought membership in ESA for the same reasons that small countries in the past became a part of ESRO and ELDO. Hungary, for example, wished to join ESA in part to stem the brain drain the Agency and other programs abroad were having on its nationally-produced scientists.[262]

In 1999, Hungary, Romania, Poland and the Czech Republic were refused entry as members into ESA based on their inability to pay into the mandatory programs.[263] Each had a history of cooperation with ESA, however, and so in order to avoid alienating them, and leaving the possibility for accession open to the future, ESA created a "European Cooperating State" (ECS) status. Each of the four countries became eligible for this status when the denotation was approved in 2001.[264] Hungary and the Czech Republic would quickly adopt the designation.

Luxembourg and Greece followed the established precedent set by Norway and Austria, and made their accession processes easier. In September 2000, Luxembourg signed

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[260] Ibid, p. 52.
[261] Ibid, p. 52.
[262] Isakeit, D. 2002. "The Erasmus Virtual Campus." *ESA Bulletin*. No 109. p. 85.
[263] Ibid, p. 84.
[264] Ibid, p. 85-6.

a Cooperation Agreement with ESA[265] as did Greece, which signed in January, 2001.[266]

They were both accepted as full members in July, 2004.[267] 2005 was a busy year for ESA

membership solicitations. By the time Poland and Romania had concluded negotiations to

become Cooperating States, Hungary officially applied to become a full member, and Latvia

and Slovakia each sent representatives seeking possibilities for greater cooperation.[268]

Poland became a Cooperating State officially in 2007.[269]

A persistent barrier to ESA's expansion was the less-developed state of candidate

countries' telecommunications infrastructure. The "digital divide" referred to inequities in

telecommunications capacity between ESA and its potential "enlargement states."[270] For

example, unequal access to the Internet might constitute one such divide. The Agency

believed this posed a significant problem. The ESA Bulletin noted the difficultly the Agency

had meeting the requests for increased cooperation among "expansion states." The

arrangements, they argued, "set up before the accession of those countries to the EU, might

quickly prove to be inadequate; some countries are already finding them too complex, and

for others the cooperation they offer is too restrictive."[271]

The recent expansion of ESA is perhaps the strongest evidence available to suggest

the norm life cycle in Europe is currently undergoing the process of socialization. According

to Finnemore's and Sikkink's model, the second stage is characterized by the expansion of

[265] Bally, Béquignon, Arino, and Briggs. 2005. p. 51.
[266] Ibid, p. 51.
[267] ESA. 2004. "ESA Annual Report 2004." *ESA Publications.* Noordwijk, Netherlands: ESA Publications Division. pp. 77-8.
[268] ESA. 2005. "ESA Annual Report 2005." *ESA Publications.* Noordwijk, Netherlands: ESA Publications Division. p. 79.
[269] ESA. 2003. "Interview with the New Director General." *ESA Bulletin.* No 116. p. 69.
[270] Bally, Béquignon, Arino, and Briggs. 2005. p. 53.
[271] Ibid, p. 53.

the norm to new states who adopt the idea without having been coerced.[272]  This has been

observed in Europe.  The candidate expansion states willingly conformed to the standards for

behavior among existing ESA states under the belief that behaving as part of Europe was in

their national interest.

The constitutive elements which made this expansion feasible extend back to the

formative years of ESA.  A string of constitutive rule changes influenced by ESA's

experiences constructed the present-day expansion policy.  The ESA Convention's emphasis

on coordination over integration among member states facilitated the expansion of the

Agency's structure, for instead of having to incorporate expansion states into the full extent

of ESA's activities, it had only to integrate new members into its mandatory programs.

These projects composed only 20% of European space states' expenditures.[273]

The lack of prescriptive rules provided in the ESA Convention, and the positive

results which came from the process used to induct Norway and Austria led to the ECS rules

now used as the standard for state accession.  The ECS pathway to accession has been a

positive influence for the socialization of the appropriateness of "Europe" because it

delineated a concrete method for conforming to ESA-sponsored norms.  The recent spate of

applications for full and associate membership to the Agency may owe in part to the clear

roadmap for induction provided by ESA's constitutive rules.

The policy of "harmonization" has also been productive for the socialization of the

European approach to space activities among existing members.  The stability it has

produced in ESA for 34 years has pushed the European approach towards internalization, as

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[272] Finnemore and Sikkink.  1998.  p. 895.
[273] Bonnet and Manno.  1994.  pp. 30-2.

each passing year has made ESA's standards for European behavior more banal.  Norm

internalization occurs when the norm becomes so uncontroversial that debate over its

appropriateness ceases to occur.[274]  For the younger generations, ESA's European approach

is all they have ever known in a space institution.  Without the development of a serious

failure in cooperation owing to the policy of harmonization, coordination of European state

policies for the good of Europe may become implicit as young people grow up to become

policy-makers.  At that point, stage three in the norm life cycle shall have been achieved.


*The end of the Cold War and the evolution of European interests*

　　　　When the Cold War came to an end, European priorities began to change.  As the

global security situation improved, and ESA became more confident in its own abilities, the

Agency became less concerned with independence in all aspects of space flight.  Instead, it

chose to pursue a limited set of priorities it believed were relevant to a stronger Europe.

While ESA remained a highly successful organization, it lost some of the sense of "other"

present during the Cold War.

　　　　Whereas in the past, ESA actively compared itself to the US and the Soviets, and

acted on the behalf of Europe to close the technological gap with its competitors, more

recently, ESA has not perceived the remaining gap in space technology between Europe and

the United States as problematic.  Indeed, the Agency seems to consider reliance upon the

Americans and Russians for European manned space flight to be acceptable for the time

being.[275]  ESA is confident it will one day possess an independent manned program, though

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[274] Finnemore and Sikkink.  1998.  p. 895.
[275] Bonnet and Manno.  1994.  pp. 30-2.

it does not currently place priority on that goal.[276]  Other European space policy areas exhibit

a similar diminished urgency.  Take, for example, the history of *Columbus* following the

close of the Cold War.

In 1992, prospects for the American-side of the Space Station were looking bleak.

After several years of redesigns, nothing had actually been built.[277]  Frustrated with the

mounting cost of redesigns, the lack of progress, and their junior-status with respect to

NASA, the Europeans began to seriously consider combining *Columbus* with the Russian

*Mir 2* rather than with *Freedom*.[278]  It is interesting to consider what might have developed,

but these negotiations were halted later in 1993, when the Americans put an end to that

avenue by signing a deal with the Russians themselves.  *Mir 2* would become part of a

redesigned space station also involving the Europeans and the Japanese.[279] The station was

renamed *Alpha* to reflect involvement of those President Reagan originally intended to

rival.[280]  The Russo-American agreement did little to ingratiate NASA with Europe, who was

circumvented completely in the process.[281]

Entering the 1990s, both the Americans and the Europeans were tightening their belts

due to an economic slowdown.  ESA made a series of cutbacks in 1993 to save money.

*Hermes,* which was to be the European equivalent to the Space Shuttle, was eliminated

entirely.[282]  Though *Columbus* remained, it was scaled down significantly so that it could be

launched on an *Ariane* rocket.  The ability of *Columbus* to detach from the space station and

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[276] Ibid.
[277] Harvey.  2003.  p. 314.
[278] Harvey.  2007.  pp. 18-9.
[279] Beattie.  1971.  p. 117.
[280] Harland and Catchpole.  2002.  p. 168.
[281] Ibid.
[282] Ibid, pp. 169-70.

become part of its own European station was abandoned, effectively making it a permanent science module on ISS.[283] The changes surrounding *Columbus* "represented a redirection of the agency's long-term strategy, which had previously been geared towards achieving independence."[284]

Europeans, particularly the French, quickly became impatient with the station, referred to after 1993 as the *International Space Station* (ISS).[285] Although the French made it clear they would have preferred to cut off their funding for the project, they did stay on for sake of being "good Europeans."[286] Reimar Lust[287] shared the French position in 1995, indicating he felt ISS could "only be justified in political terms, not really by itself. No convincing concept for its utilization [had] as yet been developed."[288]

Whether it was simply for the sake of cooperation, or something else, Congress kept the project alive, and so too did the international partners. In fact, it was the Italians who saved the day in 2001 by putting up the funds to complete the station's habitation module.[289] Clearly, some value had been placed on *ISS*, which managed even to survive the tragic loss of *Columbia* in 2003.[290] Indeed, as part of its Annual Report in 2003, ESA, despite the loss of *Columbia*, placed its resolve behind completion of the station. The rationale, however, had changed somewhat from 1995. Instead of maintaining just a political relationship with cooperating states, ESA wished to exploit the scientific potential of Columbus for

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[283] Ibid.
[284] Ibid
[285] Sometimes also known as the "International Space Station Alpha."
[286] Beattie. 1971. p. 150.
[287] Lust is a former Director General for the ESA.
[288] Sheehan. 2007. p. 181.
[289] Harvey. 2003. p. 322.
[290] Beattie. 1971. p. 188.

commercial and educational purposes.[291]  With the Soviet threat diminished, and the

European Union beginning to catch up with America economically, ESA reformed its

relevance to Europe in terms of security, but in a manner completely foreign to its Cold War

conception.

In the past, ESA was building a better future for Europe by catching up to its

technologically superior rivals.  Today, it attempts to build a better future for Europe through

the creation and distribution of information.  It eliminates threats to "European citizens"

through increased *understanding*.  For example, "global security" has been taken to mean

environmental security – "promoting a clean and safe environment for Earth and human

activities."[292]  The ability to produce and transmit information is seen to have "strategic value

for the development of nations and regions."[293]  In space policy, this has been expressed as

an increased focus on global observation.  The use of satellites to understand, predict and

mitigate the effects of atmospheric and geological phenomena on humans has consumed

much of ESA's resources.[294]

"At their 2001 Summit in Gothesburg, the EU Heads of State and Government

requested that '*the Community contribute to establishing by 2008 a European capacity for

global monitoring for environment and security (GMES).*"[295]  GMES essentially provided the

ability to observe and collect data on a broad range of natural phenomena, which has been

used to abate risk for dangers of air quality, forest fires, food security, and other humanitarian

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[291] ESA.  2003.  "Interview with the New Director General."  *ESA Bulletin*.  No 116.  p. 27.
[292] Poiares Baptista, J.P.V., Illingworth, A.J., and P. Wursteisen.  2000.  "The CLARE'98 Campaign and Its Context."  *ESA Bulletin*.  No 104.  p. 88.
[293] Liebig, Volker, and Josef Aschbacher.  2005.  "Global Monitoring for Environment and Security – Europe's next space initiative takes shape."  *ESA Bulletin*.  No 123.  p. 22.
[294] ESA.  2005.  "ESA Annual Report 2005."  *ESA Publications.*  Noordwijk, Netherlands: ESA Publications Division.  p. 76.
[295] Liebig and Aschbacher.  2005.  pp. 21-2.  Italics in original.

crises.[296]  Natural disaster management was a big theme in a year 2000 meeting discussing

the contemporary applications of the "Outer Space Treaty,"[297] and continues to be a focal

point of contemporary European space policy in the status quo.

Recent European space activities have continued to socialize the European approach

to space policy, though in ways different compared to the past.  The end of the Cold War had

several constitutive impacts on both NASA and ESA.  The global political structure

transformed from a competitive multi-polar configuration to a stable American-led system,

which altered American and European interests in space activities.  For the Americans, there

was a reduced interest in committing the same levels of finance to a space station conceived

in a Cold War context.  For ESA, the reduced scope of SSF, conflicts over the rules of

conduct for the station, a dragging economy and a reduced need for independence in all

aspects of space flight led ESA to conclude the competitive spirit which hatched *Columbus*

was no longer in Europe's interest.

Instead, Europe reinterpreted its interests as the pursuit of information in the name of

environmental security and general knowledge.  ESA altered its structure according to these

interests, transforming the focus of its projects from increasing technological capability for

sake of matching the US to pursuing applications that could pursue their new interests.

ESA's older commitments were altered to fit this behavior change as well.  *Columbus*

transformed from a pathway to European orbital station independence to a font of scientific

knowledge.

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[296] Ibid, p. 24.
[297] Balsano, A.M., and H. Stein.  2000.  "The Ariane Charter: A Cooperative Tool to Protect and Promote the Ariane Brand Image." *ESA Bulletin*.  No 104.  p. 146.

The new direction of ESA contributes to the second stage of norm development by making ESA projects a part of daily European life. According to Director Dordain, the recent spate of applications satellites and pure science projects has been intended to reach past the state all the way down to the level of the European individual.[298] Presumably, the intent is to make ESA information products such a banal part of European everyday existence that citizens could not imagine life without the products of European endeavors. Whether this strategy will make the appropriateness of the European approach to third stage of its norm cycle has yet to be seen, but it seems to be pushing in the right direction.

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[298] Dordain. 2007. p. 19.

**CONCLUSION: Exploring the future of European collective identity**

The central argument of this thesis has been that a constructivist analysis of European space policy history suggests that the promotion of a European approach to space activities among European states has contributed to the construction of a European collective identity. The norm that European states ought to behave as "Europe" has reached the second of three stages in Finnemore's and Sikkink's model for the life cycle of a norm where the norm has been adopted among states, but has not yet become so uncontroversial as to be taken for granted.

Chapter three applied the first stage of the norm life cycle model to European space policy by detailing the emergence of the idea that European states ought to behave as Europeans in their approach to space activities. The time period considered to contain the complete first stage of the norm life cycle was in fact composed of multiple starts and stops for the appropriateness of the European approach. As two separate European space institutions promoting essentially the same norm for different reasons, both ELDO and ESRO had their own bounded norm cycles with separate tipping points and varied successes in socializing the standards for behavior established by their respective Conventions. Time revealed the weaknesses of both institutions, and to correct for them, a new set of norm entrepreneurs emerged to persuade European states to adopt the same norm under a stronger structure and set of constitutive rules. Though the norm life cycle models a linear progression of norm development, the non-linear progression of events witnessed in the history of European space policy arguably does not breach the overarching pattern of norm development. Constructivism leads us to the understanding that the elements constituting a historical process are complex and reflexive. The fact there would be multiple iterations in

the attempt to internalize a common approach to policy among a set of states as heterogeneous as those found in Europe is not so surprising.

Chapter four measured the progress of common behavior among European states and found that by the standards of the norm life cycle model, socialization among states and society is proceeding well.  The ratification of the ESA Convention ushered in a period of institutional stability that has persisted to this day.  The implementation of ESA's European approach to space policy was successful enough to persuade multiple states to conform to ESA standards for behavior and seek accession into the organization.  This pattern of norm conformance, according to Finnemore and Sikkink, indicates that the socialization is proceeding in the direction of internalization.  While European poll figures and the continued debate over the future of European coordinated policy seems to indicate the threshold of the third stage in norm growth has yet to be broken, recent trends in ESA behavior seem to indicate it is moving in a direction that will extend the benefits of European behavior to the level of the individual.  If ESA can make its information products an integral part of European daily life, it stands a good chance of ending the debate in favor of truly European behavior.

The lingering question, which constructivism unfortunately cannot answer, is *when* will the socialization of the European approach become internalized?  The norm life cycle model gives only limited clues as to when this might be.  According to Finnemore and Sikkink, internalization is preceded by a wave of conformance to the norm, instigated (perhaps) by peer pressure among states or strong esteem benefits.[299]  Europe has certainly seen a great deal of conformance, but the concept of "Europe" remains controversial all the

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[299] Finnemore and Sikkink.  1998.  pp. 902-3.

same.  As with many processes, patience is advised.  Socialization *is* occurring.  Given the

strong history of nationalism in Europe, perhaps it should not be surprising that the process

of European socialization would span a generation or more.  There has been significant

progress.  The effect of the European approach to state behavior has translated into European

identity among individuals; and while this often manifests as a secondary identity, that at

least half of Europeans consider themselves in some part "European" is significant.  The

reason why those numbers climbed so quickly early on, but have remained stable for the last

15 years is somewhat difficult to explain.  Though mass popular conformance to a norm is

not expected until stage three of the norm life cycle, where did the already considerable

numbers of self-identified Europeans come from?   Several questions remain, and future

iterations of research on a similar topic could benefit from specific improvements.

The historical narratives which provided the bulk of evidence throughout the paper

were heavily reliant upon secondary sources of historical data.  This paper is deeply indebted

to the ESA Publications and History departments, as their information has been most illusory

to understanding of the space institution.  However, it would be superior to refer instead to

the primary documents that were used to create the ESA history texts so that there would be

fewer filters in the interpretation of the political side of European space history.  This would

require a trip to Paris, where ESA headquarters are located, as many of these primary

documents have not yet been digitized.

An increased exploration into the role the Soviets and Russians had on European

space policy development could be illuminating.  Though it is appropriate to characterize

American involvement with the Europeans as heavier than Soviet or Russian historically,[300] Russia has been an important service provider for Europe throughout the space age. France cooperated with the USSR on satellite construction as early as 1966.[301] The Soviets and French again collaborated in 1982, when Jean-Loup Chrétien was taken to space as part of a *Soyuz* mission.[302] More recently, ESA and the Russian Space Agency have begun to work much closer together, signing a deal in 2005 to share a common launchpad in Kourou, and to collaborate on future rocket designs.[303] Soviet influence in the past and Russian cooperation into the future likely has some impact which has not been accounted for here.

The extent to which European space policy will influence the direction of European identity is uncertain indeed. The task of persuading European states to take a European approach in space matters has gone well, but will this translate into similar thinking among European individuals? As the initial attempts at a European approach in the 1960s suggest, there are hazards to such a complicated task as coordinating a large pool of self-interested states. While ESA has managed to achieve this for some time, unforeseen events or pressures could easily throw the Agency's progress off track.

Whether or not European collective identity is ever realized, the constitutive effects of the process experienced to date invites continued study and theorizing with regards to what lies beyond the nation-state.

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[300] Kirge and Russo. 2000. pp. 1-427; Kirge, Russo and Sebesta. 2000. pp. 1-683.
[301] Ibid, p. 388.
[302] NASA. 2002. "Biographical Data: Jean-Loup J.M. Chrétien, Brigadier-General, French Air Force (Ret.)." *Lyndon B Johnson Space Center*. Last updated: January, 2002. Accessed: July 15, 2009. http://www.jsc.nasa.gov/Bios/htmlbios/chretien.html
[303] BBC Staff Writer. 2005. "Russia and Europe Sign Peace Deal." *BBC News*. 19 January 2005.