

# Systemic Integration and the Need for De-Integration in Pandemic Times

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## Abstract


The condition of social isolation due to the Covid-19 pandemic makes most of us aware of the value of sociality — which we now lack. But society is not only sociality, and in the current emergency we perceive it as global interconnectedness that makes the crisis spread from one geographical area to another and between different fields of society. The common response to a global emergency is a call for coordination — the idea that we should “tighten up.” In sociology, this reference to unity and coordination is discussed as integration. The paper argues, referring to systems theory, that the problem of our functionally differentiated society is not lack of integration, but rather an excess of integration. When there are difficulties in one area of society, all others are forced to make serious adjustments. In dealing with threats that come from the environment, the opportunities for rationality in society lie in the maintenance and exploitation of differences, not in their elimination. This hypotheses is discussed dealing with integration on three levels: 1) the consequences of the emergency on the relationships between different fields (or functional subsystems) of society: *systemic integration*; 2) the effects of the pandemic on the conditions of inclusion and exclusion of individuals in society: *social integration*; 3) the spread of the emergency in all regions of the world and the consequences for globalization: *geographical integration*.

**Keywords:** Social Integration; Systemic Integration; Pandemic; Inclusion/Exclusion; Systems Theory; Globalization; Differentiation of Society.

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## 1 Social Distancing and Closeness to Society

The purpose of this paper is to analyze the coronavirus emergency with the tools of sociological systems theory — primarily because it is a theory of society, and there are not many nowadays. The prevailing trend in sociology is to refrain from proposing a theory of society, and several influential authors explicitly deny the possibility of a general theory of the social (e.g. Bourdieu, Passeron, & Chamboredon, 1968; Latour, 1987). However, as William Davies argues in a recent contribution (Davies, 2020), in the Covid-19 crisis the reference to society seems to become unavoidable — and in my opinion very useful.

On the one hand, the present condition of social isolation makes most of us aware of the value of sociality — that we lack. But society is not only sociality, as we perceive precisely when we must minimize physical social contacts.<sup>1</sup> Society also includes (especially today) the reference to an encompassing level beyond face-to-face interaction and also beyond organizations or the state.<sup>2</sup> Dealing with society we observe the connection (or lack of connection) between economy and politics, between our intimate life and legal norms, between healthcare, national borders and many other fields such as mass media, education or even sports — and of all these fields with one another. In systems theory, society (*Gesellschaft*) is defined as the encompassing system which includes all communications (Luhmann, 1997) — in a small village in Sicily and in Tokyo, in a school class and in the parliament, in scientific publications as in movies and in music, in a community of friends and in the web. This is the concept I will take as my reference.

In the emergency we perceive society much stronger because of a condition that appears as a global threat and seems to change everything everywhere. “There is the world B.C. — Before Corona — and the world A.C. — After Corona” (Friedman, 2020). Lichfield (2020) fears that we will never return to normal. The result is a widespread uncertainty, all the more so because not only we don’t know how the things we expect will turn out (the known unknowns) but we don’t even know what we have to expect (the unknown unknowns).<sup>3</sup> From a sociological perspective, however, it is never true that everything changes. Normality returns, but different.<sup>4</sup> Breaks presuppose much continuity, and sociologists inquire why they are perceived as such.

The threat of the coronavirus is destabilizing primarily because of its *urgency*. It is an environmental threat, a virus that comes from outside, on which society cannot plan its intervention but only react and see what happens — and in this challenge it always lags behind. Will the virus transform or weaken? How long does it survive on different surfaces? Are recovered people immune or not? We don’t know, we don’t have time, and — as in the case of new technologies (Luhmann, 1991, pp. 93 ff.) — we can only understand whether the decisions taken to deal with the virus are correct after we have taken them and see the consequences.<sup>5</sup> Simulations are not used to predict what will happen but to prepare for events that we don’t know — in a kind of stress test that involves the whole society and whose effects are real (Coombs, 2020; Stark, 2020).

1. E.g. Butler (2020): “The imperative to isolate coincides with a new recognition of our global interdependence.”
2. If anything, as what makes it possible to revive sociality shifting social interactions to the virtual dimension of Zoom meetings, web aperitivi, conference calls etc. Physical distancing does not necessarily mean social distancing.
3. See for example Siobhan Roberts (2020) about the “varieties of uncertainties” produced by the pandemic.
4. In March 2020 the *Wall Street Journal* published a series of articles on “the new normal.”
5. Lipsitch (2020) observes from the perspective of epidemiology that “Given this urgency (...) decisions with great consequences must be made before definitive data are in.”

The emergency is experienced in a dramatic way also because it is *global*. The risk affects the entire world, from Hubei to Italy to New York to Rwanda, all sectors of society and each of us. The virus is a threat to people's lives, but also to the stability of institutions, the soundness of finance, interpersonal relations, democracy, the maintenance of jobs, international links and many other things. In these conditions, society is perceived first of all as global interconnectedness that produces a domino effect and makes the crisis spread from one geographical area to another and between different fields. People get sick everywhere, and the medical emergency of the virus produces an emergency in politics torn between authoritarianism and defense of freedom, in the economy that must stop production and face financial turbulence, in the educational system forced to online education, in families whose members have to live together, in sport that cancels the Olympics. Not everywhere the emergency is a disadvantage: for the mass media and long-distance communication, for example, it also offers unprecedented opportunities — of which Netflix, Zoom and Instagram take advantage.<sup>6</sup> In any case, it results in a global excitement that requires unconventional responses with unpredictable consequences in other areas of society. What does sociological theory offer to analyze this challenge?<sup>7</sup>

My starting point is the widespread call for coordination, which in sociological terms is discussed as *integration*. The argument proceeds as follows. First I describe the difficulties of coordination in complex modern society. I argue, referring to systems theory, that in an emergency our functionally differentiated society is endangered by over-integration more than by lack of integration. In the subsequent sections I explore three aspects of integration and de-integration in relation to the emergency: *systemic integration* — the forms of coupling and uncoupling in the relationships between different fields (or subsystems) of society; *social integration* — the effects of the pandemic on the conditions of inclusion of individuals; *geographical integration* — the spread of the emergency in all regions of the world and the consequences on globalization.

## 2 Integration in Functionally Differentiated Society

In an emergency, the high interconnection of society becomes a threat. Coordination is required between different countries<sup>8</sup> and also between political, economic, legal, sanitary measures to face the emergency. The most common response is to demand “tightening-up” (e.g. Gelfand, 2020). If everything is connected with everything else, one claims, interventions in different areas should be coordinated according to the same approach and the same basic principles. Only in this way, one argues, can interventions be effective and avoid hindering each other. By going all in the same direction one does not get in each other's way, reinforces each other and proceeds more quickly and effectively.

The classical notion that sociology proposes to study the interconnection of society is the concept of *integration*. The notion refers to what holds society together and addresses the relationship of the parts to the whole. Usually integration is interpreted in a general sense as

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6. During the pandemic, major newspapers like *The Guardian*, *The Times*, *The Telegraph* and *The Financial Times* have seen soaring online readership (Mayhew, 2020), and also the site of a traditional magazine like *The Atlantic* had an increase of thirty-six thousand subscriptions in the first four weeks of the crisis — although, like many others, it waived the paywall for articles on the subject.
  7. The object of sociological observation is primarily communication — in this case communication related to the pandemic. At this stage, my analysis draws heavily from information in the media: online sources and newspapers with their reportages and opinion pages. While delivering information about the emergency, media content is directly information about communication in the emergency.
  8. I deal with this aspect in Section 5.

reference to a shared unity, to a common perspective one recognizes and in which one can identify herself. Classical sociologists like Durkheim (1893/1960) and Parsons (1977, pp. 283 ff.) use the notion of integration to deal with a widespread sense of belonging connecting different parts of society, which should be preserved. Societies, that's the idea, should be as integrated as possible, avoiding risks of anomy and coordination difficulties — especially in challenging times as the present emergency.

The principle seems plausible, but putting it into practice in a complex society is not easy. Integration in this sense is threatened by the increasing differentiation of society, starting with the division of labor. The challenge is maintaining a shared feeling of belonging not when everybody is equal and does the same things, but when everybody is different and does different things. The main obstacle is the condition that system theory calls *functional differentiation*, considered the basic characteristic of modern society (Luhmann, 1997, pp. 743 ff.). Functional differentiation refers to the articulation of society into different areas (or functional subsystems), each directed to a specific function: economy, politics, law, science, education, art, religion, mass media, families, healthcare.<sup>9</sup> Whereas in previous hierarchically organized societies the different fields shared the same basic principles, in modern society each subsystem is guided by its own logic and criteria, which are not necessarily coordinated with those of others and cannot be traced back to a single order. The programs and priorities of the economy are different from those of science, politics, religion and any other subsystem — and success in one system does not by itself translate into a positive result in a different one. While the economy is driven by profit maximization, politics seeks consensus, research is directed towards the production of scientific truths and healthcare towards patients' recovery.

Yet the pandemic today threatens everything — health and wealth, church and commerce, law, sport and families.<sup>10</sup> Differentiation, which leads to different responses in different areas, in the face of this challenge seems to prevent coordination. Medicine needs tests to see who has the virus and must stay in isolation — while the economy requires tests to see who has the antibodies and can go to work. Restricting people's freedom and tracing their movements is effective in countering the spread of the virus, but goes against the principles of the rule of law and the guarantees of the constitution. Reducing taxes can help companies overcome the crisis, but taxes are required to support research and equipment for hospitals. Science needs time to develop and test treatments, yet politics is in a hurry to give immediate answers (Gopnik, 2020).

In the emergency one would like harmonization, and since each subsystem tends to go its own way the most plausible criterion seems to be the orientation towards shared values.<sup>11</sup> The idea is that regardless of the different preferences, when the situation is serious society should wrap itself around basic values. In practice, however, experience shows that orientation to values does not solve the problems, not only when people do not agree but also when the values

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9. Healthcare (in German *Körperbehandlung*) is analyzed as an autonomous functional subsystem focused on the distinction healthy/sick (Luhmann, 1990) — with the peculiarity that the less preferred side (sick) is the instructive one. Physicians only deal with diseases. Health, which is the goal of the system, is an empty reference devoid of information value.
  10. Stichweh (2020) and Baecker (2020) both refer to the Luhmann's theory to observe the consequences of the corona-crisis on the relationship between functional subsystems and individuals. Here I choose a different approach — even if in section 4 I also deal with the inclusion of individuals in society.
  11. Reacting to the shock of the Lisbon earthquake of 1775, with 75,000 victims and devastating consequences for the economy, politics, theology and the general structure of the society of the time, Kant already called for general responsibility and shared human values (Larsen, 2006).

are shared. Consensus on values does not mean consensus on decisions.<sup>12</sup> One can advocate the same value and still demand opposing measures — for example, invoking the priority of saving lives one can decide that people must remain in isolation to avoid deaths, but also that they must leave home and go to work to avoid the victims of the economic recession, possibly much more numerous.<sup>13</sup> As Luhmann (1997, p. 799) points out, moreover, values do not contain rules for the conflict between values. Those who reject the tracing of people in the name of the principle of individual freedom invoke an undisputable value, but also those who demand tracing in the name of health. Freedom and health are shared values, but what value makes it possible to decide which value to choose when taking a decision? And who decides? In a complex society the attempt to reduce conflicts with a unitary value orientation risks multiplying conflicts.<sup>14</sup>

Can our society still be integrated under these conditions? Responding to this challenge, Luhmann deviates from the classical sociological approach and describes integration not as reference to unity but as disturbance. In his definition, integration is “a reduction of degrees of freedom” due to belonging to society (1997, p. 603). The problem of functionally differentiated society, as I elaborate in the next sections, is not lack of integration but rather too much integration, which can be very dangerous.

### 3 Systemic Integration

My analysis focuses first on *systemic integration*, which refers to the mutual relationships of the subsystems in a functionally differentiated society. Here integration does not mean unity but mutual constraints: “It lies not in the relationship of the ‘parts’ to the ‘whole’, but in the movable, even historically movable, adjustment of the subsystems in relation to each other” (Luhmann, 1997, p. 604). Integration does not imply sharing the same orientation but acknowledging the reciprocal existence. Every system must give up possibilities: for example, science never has all the money it needs and not all promising research is permitted by law or religion; politics is bound by the constitution, by budgetary limits and by media observation. These limitations, however, are necessary to continue to operate in the society to which the systems belong. In this sense, integration in itself is neither positive nor negative — it is a fact in the existence of a complex society with partial systems. Increase in integration is not necessarily an advantage and cannot be the goal — it does not mean by itself an increase in coordination, but primarily an increase in constraints. Cooperation integrates because it requires to refer to the other parties, but conflict, for example, integrates much more, because it tends to mobilize all resources in the management of the dispute and leaves little room for any other consideration — for all operations that do not concern the mutual relations. When one quarrels, one does nothing else, producing very high integration without consensus, but this is certainly not the most efficient social condition.

The problem of a complex society is not lack of integration but rather the ability to ensure sufficient de-integration — sufficient reciprocal indifference (Luhmann, 1997, p. 183). De-

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12. In terms of systems theory, values are not programs: cf. Luhmann (1984, pp. 434 ff.).

13. “Death by coronavirus or by hunger?” might be, according to Sharma (2020), the dilemma that some low-income countries will have to face. But not only them: on March 22, 2020, Donald Trump’s declared, referring to the economic consequences of the crisis: “We cannot let the cure be worse than the problem itself.”

14. See Corsi and Martini (2018) on the “judicialization of health” in the Brazilian legal system declaring “health as a fundamental right of the person.”

integration opposes the reduction in degrees of freedom imposed by the adjustment to each other, i.e. by integration. Differentiation does not imply de-integration in this sense, rather the opposite: “Modern society is over-integrated and therefore endangered” (Luhmann, 1997, p. 618) precisely as a consequence of functional differentiation. The increasing autonomy of the different areas of society does not mean that functional systems do not care for one another — quite the contrary. Every system carries out its operations according to its own criteria, but precisely therefore needs the other functions of society to be fulfilled by other systems that follow a different logic and different criteria, and has to make this possible. Functional differentiation involves a “simultaneous increase of mutual dependencies and independencies” (Luhmann, 1997, p. 763).

Functional subsystems are more independent from one another because they do not follow the same principles: e.g. the results of science are not guided by religion, the legal system does not follow the laws of nature, the head of government is not chosen because he is noble or educated or rich. However, they are also more interdependent because each function can only be fulfilled in its specific system, on which all other must rely. Modern society renounces the redundancies that guaranteed flexibility to previous societies, where one could find in the sacred scriptures the answers to scientific or political or juridical questions, which in turn could confirm each other. Now the problems of one sector of society cannot be solved anywhere else. If scientific research does not produce the results that are needed, they cannot be imposed by law. Politics does not have the tools to produce wealth, and if it “prints” more money it has to deal with inflation problems. As Michael Bloomberg’s experience has shown, wealth in itself does not imply consensus (even if it helps). The success of marriages cannot be guaranteed by high levels of education.

Every functional system carries out its operations according to its own procedures and criteria, and other areas of society can only affect them in a negative way: if the economy stops funding, research will not produce results — but with money you cannot buy scientific discoveries. Moreover, the consequences of the various measures are different in each area and can be incommensurable. A moderate reduction in the increase in public spending on health care due to budgetary difficulties can have an over proportional impact on the number of hospital beds (down by 30% in Italy since 2000; see Fontana, 2020) — even if under normal conditions the shortages are not perceived.

Each subsystem needs the necessary functions to be guaranteed and depends on the functioning of the other systems, and all proceed autonomously. When things go well, this close mutual dependence on the autonomies of others goes unnoticed, but it stands out when there are problems, as is typically the case in emergencies. If there is a high failure rate in one system, all others are forced to make serious adjustments (Luhmann, 1997, p. 769). The troubled subsystem affects all others in a sort of call to arms in which paradoxically the central position is not occupied by the system that works better and is stronger — but just the opposite. Reciprocal indifference, i.e. de-integration, becomes difficult.

When there is an emergency, all functional systems are overwhelmed by a domino effect, as we observe today. In the space of a few weeks, the coronavirus has overloaded hospitals, generating an emergency in the health care system that rapidly dominated society as a whole. The government has to deal with it, the economy is in trouble, schools are closed, interpersonal relationships are blocked, no more mass, sports competitions and concerts are suspended, emergency laws are laid down. There is a strong reciprocal reduction in degrees of freedom, which is difficult to curb and to govern — an excess of systemic integration so that the shortcomings of one area are immediately reflected in what can be done (or cannot be done) in every other



one.<sup>15</sup> This is the problem that our society is facing in the coronavirus crisis.

Many observers have noted that never before such a radical change in society had been so sudden as in the current emergency (e.g. Fraioli, 2020). Functional differentiation makes the emergency more dangerous, because the difficulties and their consequences spread uncontrollably in every field of society. Why? How is this condition related to increasing autonomy? Here I have to introduce a further notion — the concept of *irritation* (or perturbation), that describes how a system perceives its environment (Luhmann, 1997, pp. 789 ff.). Systems theory speaks of irritation rather than determination or causality to emphasize that in a complex society the environment does not intervene directly in the operations of a system — not even in the case of coronavirus: Politics or the economy do not get sick. Irritation indicates the specific way in which each system can perceive a disturbance — or not perceive it (politics and the economy have initially been blind to the spread of the infection). If it perceives it, it is “irritated” in the sense that its operations do not go on as usual but take into account an unforeseen circumstance: the interruption of the supply chain of components from China, the overload of Internet networks, children forced to stay at home. How each field autonomously reacts to the irritation cannot be determined from the outside or from the start, nor decided by another subsystem. The system can ignore the irritation and keep its structures unchanged, i.e. go on as before — under limited conditions. Or it can learn and change the way it operates, more or less creatively.

Functional differentiation enables systems to operate in a focused way and detect more and more diverse environmental conditions.<sup>16</sup> As a result, the irritability of systems increases enormously, i.e. the ability to perceive stimuli and to produce differentiated reactions that can be opportunities for learning and innovation. However, it also creates specific coordination difficulties. No unitary perspective can be assumed. Not every system is confronted with the same problems and identifies them in the same way — whereas problems in one area can be opportunities for a different area. Under normal conditions, discrepancies are only perceived as disturbances (the success of social media challenges the procedures of democratic politics, the increase in the average age of the population puts pressure on the organization of welfare) producing differentiated responses — and society as a whole evolves. When facing an emergency with the consequent stronger integration of different sectors of society, however, coordination problems spike. Politics, the economy, families, schools, the mass media, are all irritated and must react immediately, each in their own way, to the health crisis, that yields different problems in each system.

All sectors of society are mobilized to manage the crisis, but a general confluence of resources in the endangered sector is not the solution, because the area that triggers the emergency cannot directly use the operations of others. Neither political decisions nor money nor love of families by themselves heal the patients — the cure must be provided by the healthcare system with its resources. The other subsystems should go on performing with the greatest possible efficiency compatible with the emergency, because money, regulation, interpersonal relations, research, as well as entertainment, religious comfort and artistic experiences are still (even more) needed — but the responses in each area have different consequences in all others. The effects cannot be causally controlled, especially in the urgency of the emergency. Causal control requires temporal distance between effect and cause in order to evaluate and plan the

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15. Miller (2020) describes similar catastrophic consequences of systemic over-integration in the Soviet Union after 1990.

16. In terms of systems theory: the dissolving and recombination capacity (*Auflöse- und Rekombinationsvermögen*) increases (Luhmann, 1997, p. 131).

intervention (Luhmann, 1997, p. 605). Under the pressure of the crisis there is no time, and the effects of the measures on other sectors of society are immediate — therefore uncontrolled. Nor can the reaction be centralized, because the variety of responses, and with it also the efficiency of the different systems, would be lost. “Functionally differentiated society operates without a top and without a center” (Luhmann, 1997, p. 803).

Functional differentiation, however, also increases resilience (Luhmann, 1997, p. 133). If the functional subsystems have sufficient degrees of freedom, they can develop a variety of reactions. Alongside the inevitable systemic integration spreading a problem in all subsystems and limiting their possibilities, in a functionally differentiated society there can also be a de-integration of reactions, so that each system can generate its own solutions different from every other one. The opportunities for rationality of society in dealing with problems that come from the environment, argues Luhmann (1997, p. 185), lie “in the maintenance and exploitation of differences, not in their elimination.”<sup>17</sup> Functional differentiation accentuates coordination problems but also the variety of responses — i.e. de-integration.

The Coronavirus emergency, that puts society under a pressure to integration unprecedented for many decades,<sup>18</sup> also allows for sufficient reciprocal indifference to produce diverse responses. The emergency has repercussions in all fields and integration is inevitable. Every system has to deal with the same issue at the same time. The medical need to limit the movement of people has political, legal, family, media, etc. relevance and affects all areas of society. All systems converge on the same problem, greatly restricting the degrees of freedom of each of them. Whatever the priorities and programs of the various areas, in the general mobilization they all constrain each other. Even if they deal with the same event, however, the systems are not bound to do the same thing and do not stick to each other. In every area of society the meaning of the event is different. The constraints to people’s movements provoke in politics a discussion about public order measures, the economy activates home working, finance speculates, the legal system debates about the legitimacy of the limits to the freedom of individuals, the mass media plan their palimpsest to take into account the new time availability of users, schools and universities change the organization of teaching, family members spend much more time together. The system that requires the constraint (healthcare) cannot predict what consequences it will have in other areas, but neither can it determine what others will do with it. “In the pulsation of events the systems integrate and de-integrate from moment to moment” (Luhmann, 1997, p. 605).

The rationality of coordination<sup>19</sup> is strengthened not by increasing bonds, i.e. integration, but by fostering the diversity of reactions to the same problem — i.e. de-integration and reciprocal indifference. The different systems that must react to the same event, independently determine the consequences of the irritation and learn differently. The companies that have to pay their employees to stay at home, if they do not close, activate new relationships with workers and innovate their structures. Politics absorbed by emergency management restructures the relationship between government and opposition (reducing polarization or introducing authoritarian forms like Orban’s Hungary). Mass media that must avoid people getting bored

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17. On the same line, Stark (2014) argues for the need of requisite diversity when a system has to face a threat or even try to avoid a disaster. Tight harmonization, he claims, endangers resilience.

18. The widespread parallel with wartime refers to another condition of very high integration, in that case due to conflict.

19. Rationality in the sense of systems theory as the ability of systems to take into account the consequences on themselves of their effects on the environment: see Luhmann (1997, pp. 171 ff.; p. 184). In this sense, full rationality is unattainable.



develop new formats (e.g. webcam interviews on Skype or Face Time, or shows on Instagram Snapchat Stories that disappear after 24 hours; see Zoglin, 2020; Dipollina, 2020). In schools forced to give up interaction in class, the computer literacy of students and teachers increases and new forms of teaching are tested. Scientific researchers cannot access labs and attend conferences — but under the pressure of the emergency new online forms of dissemination of information emerge (such as the Covid-19 Open Research Dataset)<sup>20</sup> as well as innovative experiments using A.I. to explore big corpora of research papers (Markoff, 2020). Churches are empty, but for the first time the pope grants the plenary indulgence to all believers (in Pope Francis' prayer on March 27, 2020). Families find themselves and in some cases restructure (several Chinese provinces reported a record-high number of divorce requests in the weeks following the emergency quarantines; see Bilefsky & Yeginsu, 2020).

No unitary logic underlies this variety of responses. The coordination, if there is any, does not rely on shared goals or common principles, but rather on the possibility for each system to rely on the contribution of the others and do something different.<sup>21</sup> There are many examples,<sup>22</sup> but here I take only one: the reciprocal relationship of science and politics. Under the pressure of the emergency, the two systems are strongly integrated — but they each can use this condition to develop autonomous degrees of freedom.

Dealing with the pandemic, science seems to direct politics. Politics relies on experts. In most countries, daily government press conferences are held or guided by epidemiologists, who explain the situation and provide information. The task of science, however, is not to produce certainties and operational indications, but rather to generate the uncertainty that drives research forward (Luhmann, 1992, p. 785; Bechmann & Hronzsky, 2003; S. Roberts, 2020): “the expert is a specialist to whom one can put questions that he is unable to answer” (Luhmann, 1992, p. 141).<sup>23</sup> Especially in the case of the pandemic, experts describe what is happening but repeat that they cannot give precise indications on how the curves will go, on the effects of the measures, on the consequences for the population. Politicians listen to the opinions of the experts and refer to the data they provide, but the integration of politics and science does not mean that experts are the ones who determine if and when to reopen factories and how to monitor people's movements<sup>24</sup> — nor that virologists are governing (McCoy, 2020; Urbinati, 2020). In the rampant uncertainty, political decisions tend to refer to expert advice, which provides “irritations” that can be used immediately and are easily legitimized, but it is up to politics to decide according to the democratic procedures of representation and attribution or withdrawal of consent. Scientific irritations are received in a way that favors, not paralyses, the decision-making capacity of politicians (Eyal, 2019).

20. <https://pages.semanticscholar.org/coronavirus-research>

21. Again in terms of systems theory, it is a matter of realizing different forms of structural coupling between various functional systems. Cf. Luhmann (1997, pp. 778 ff.).

22. For instance the reaction of the economy to political subsidies to citizen and companies, or the political consequences of the legitimation of measures that restrict the fundamental rights of people.

23. Virologist Christian Drosten of Berlin's Charité university hospital, who acted as consultant of the German government on the political response to the crisis, declared to the weekly *Die Zeit*: “I'm happy to explain what I know. (...) But I'm also honest about what I don't know.” See Drosten's interview with Florian Schumann on March 23, 2020: <https://www.zeit.de/wissen/gesundheit/2020-03/christian-drosten-coronavirus-pandemic-germany-virologist-charite>

24. See the interview with Dr. Anthony S. Fauci, head of the US National Institute of Allergy and Infectious Diseases, in *The New York Times*, April 4, 2020: “I do not believe that my role as a medical expert includes trying to change Trump's rhetorical” style. (...) I see my job as the person who is the scientist to get the correct information, correct evidence to him so he can make decisions.”

On the other hand, in the emergency politics seem to direct research and to dictate its focus. Political and economical pressure on science increases — not only for the pursuit of a vaccine research and treatment of the disease or epidemiological forecasts, but also for the study of related economic, constitutional, psychological, educational aspects. This pressure restricts the freedom of research but does not overtake its procedures. Despite huge urging, the timing and the constraints of scientific research cannot be much accelerated. The search for the vaccine requires several months, the treatments need testing and verification. The increase in resources and support, meanwhile, makes it possible for science to develop its own procedures and unfold its autonomous potentialities. As the experience of research in times of war abundantly shows, emergencies are an opportunity to advance knowledge not only on present problems but also on problems that are currently unknown.

#### 4 Social Integration

Up to now I have been dealing with systemic integration, i.e. with the relationship of functional subsystems with each other and with society as a whole. Integration, however, can also be understood as *social integration*, which concerns the belonging of individuals to society. In sociology this issue is discussed referring to the conditions of *inclusion and exclusion* of people (Luhmann, 1997, pp. 618 ff.).

In contrast to other social formations such as hierarchical ones in which individuals belonged to one layer and not to the others, in functionally differentiated society in principle all individuals are included in all subsystems. Everyone has legal capacity, can make payments, has the right to vote and to have medical assistance, can and should go to school, can get married, watch television, have a religious faith, etc. Inclusion for all, however, obviously does not imply equality: not everyone has the same money, the same political power, the same education. In fact, the concrete possibilities are different for each person and the differences are constantly increasing, but this inequality is not the result of a general strategy. Even in the inclusion/exclusion of individuals, our society is not integrated — and should not be.

Exclusion exists, but does not concern the identity of individuals — it concerns their membership in organizations in different functional subsystems, that are not integrated.<sup>25</sup> Exclusion is distributed to organizations. Everyone can have an education, but not everyone can study at Harvard, where strict selective procedures exclude most applicants. Everyone has access to politics, but not everyone is elected to public office. Everyone participates in the economy, but not everyone is employed at Volkswagen or Google. Organizations exclude most individuals, but those who did not study at Harvard can still join a trade union, be admitted to the bridge club or have a good job — and those who have a Harvard PhD can still be rejected. Under conditions of functional differentiation, inclusions/exclusions in one sector do not immediately result in inclusions/exclusions in other sectors.<sup>26</sup> These limits to the integration of social inclusion are one of the fundamental (albeit imperfect) guarantees of the possibility of self-realization of individuals in modern society.

The coronavirus emergency, instead, can lead to integrated forms of inclusion and exclusion and of reproduction of inequalities. In planning how to resume social activity after the lockdown, many countries discuss the possibility of a “Covid Pass” or “immunity certificate”

25. Systems theory studies organizations as a specific kind of social system, defined by membership and by the production of decisions (Luhmann, 1997, pp. 826 ff.; Luhmann, 2000).

26. When it happens, it is perceived as corruption or improper commingling.

that would allow citizens who possess antibodies to start working again and meet other people (Horowitz, 2020).<sup>27</sup> Through serological tests or algorithmic procedures,<sup>28</sup> the idea is to give people who are not in danger of becoming infected and to infect others a “green sticker” that gives access to jobs, social gatherings and all forms of communication that require physical proximity between people. The risk of the proposal is that we could move from the “normal” social inclusion/exclusion limited to organizations to a form that affects the individual as a whole and spreads across all social fields: the distinction between those with the green sticker and those without it.

The “de-integrated” inclusion/exclusion of modern society does not define people: one does not normally introduce himself as a registrar, tennis player or member of the Green Party. The green sticker (which according to some proposals should be indicated in the passport), instead, would be part of the identity of individuals, such as family of origin or race in stratified societies. The consequence would be an integrated form of social inclusion that spreads in all social spheres: the “green sticker” would be the first thing one declares, and those who can show it could go to work, but also play sports, meet people in bars and have intimate relationships — with a general multiplication of possibilities. This perspective is extremely problematic for both social exclusion and social inclusion.<sup>29</sup>

Exclusion, which is already a problem in itself, tends in any case to be integrated with a domino effect. Even under normal conditions it can easily happen that those who lose their jobs also lose their health insurance and the possibility to send their children to school, have reduced chances of social encounters, difficulties in the family, etc. (Luhmann, 1997, p. 630). This integration risks being greatly strengthened by the Covid-19 certification, producing a category of citizens who — although included in principle — are in fact excluded from the communication possibilities of society in general. But also integrated inclusion risks generating perverse effects. As long as inclusion in one area is disconnected from inclusion in different areas, there is no way to steer it and society can rely on the diversity of uncoordinated social possibilities. Already today, however, people talk of the possibility of “Corona-Parties” between young people organized specifically for the purpose of becoming infected and then healing, obtaining the green sticker with all individual benefits it entails (Scholz, 2020)<sup>30</sup> — and the consequent limitations in societal variety.

## 5 Geographical Integration

The last step of my analysis deals with the issue of *globalization*, which is perhaps the clearest aspect in which integration of society — or the lack thereof — is normally perceived. Does the

27. The proposal also circulates that young healthy individuals could enroll in a “controlled voluntary infection” strategy and deliberately infect themselves to provide society with a cohort of immune citizens (Perednia, 2020).

28. As in the Alibaba app (Mozur, Zhong, & Krolik, 2020) or through Digital Contact Tracing tools (Waltz, 2020; Nicas & Wakabayashi, 2020); see also the Pan-European Privacy-Preserving Proximity Tracing initiative: <https://www.pepp-pt.org/>. On the ethical implications of the different measures, see Canca (2020). The debate is developing at a very fast pace.

29. The integration of inclusion/exclusion conditions of people is in my opinion also the real problem underlying the recent debate on digital surveillance (see inevitably Zuboff, 2019) and the intensively discussed privacy risks related to the pandemic — e.g. in the contribution of the Editorial Board of *The New York Times* on April 7, 2020: “Privacy Cannot Be a Casualty of the Coronavirus.”

30. Cf. Olivarius (2019) about the pursuit and the social consequences of the “immunocapital” of the survivors of yellow fever in Nineteenth century New Orleans.

coronavirus emergency mark the triumph of globalization or its end? Both opinions have been voiced.

The emergency reinforces the opinion that there is a connection between all parts of the world<sup>31</sup> — not only because the disease is spreading without any respect for borders, but also because each nation is linked to the others in the supply of respirators and masks, in economic measures to deal with the crisis, in the search for a vaccine or for effective treatments, in the circulation of people on planes and of news on the web (Frum, 2020; Armstrong, 2020; Recke, 2020). The trend towards globalization seems stronger than ever — if anything because no nation can defeat the pandemic on its own until it is defeated by the other nations and there is no risk of reactivating the contagion. On the other hand, the threat of the pandemic seems to have accentuated nationalisms and tendencies towards localism: borders are being closed, resources are being concentrated, the movement of goods and people is being restricted. According to several observers, the first victim of the Coronavirus seems to be globalization (Legrain, 2020; Farrell & Newmann, 2020).

According to systems theory, is the pandemic strengthening globalization or reinforcing localism? The situation is more complex. In a functionally differentiated society globalization is not an option, it is a fact. Like the circulation of the virus, functional systems respect no physical boundaries: a scientific discovery is valid in China as in Ecuador as in Rwanda, and the search for the vaccine takes place simultaneously all over the world.<sup>32</sup> The turbulence in the financial markets shows the same interconnection, as do the investment policies of the large corporations. The circulation of news covers the whole globe, religion addresses believers wherever they are, and even political communications — much more sensitive to regional borders — cannot ignore what is happening in other countries. That modern society is a “world society” (*Weltgesellschaft*) (Luhmann, 1997, pp. 145 ff.), however, does not mean that there are no regional differences. Precisely because communications in every corner of the globe are connected with what is happening elsewhere, on the contrary, differences become stronger and more evident.

Living in New York is very different than living in Wuhan or Berlin, but the specificity of each place stands out only in the comparison with other lifestyles. The relationship between globalization and localism is not an opposition. Globalization is not the negation of local reference, but the other side of a difference — the difference global/local — whose two sides increase with each other, and which is linked to the overcoming of borders imposed by functional differentiation. Without McDonald’s and Starbucks there would be no rediscovery of zero kilometer food, without cosmopolitanism there would be no valorization of national dialects and traditions, without the internationalization of politics there would be no sovereignism, without delocalization there would be no America first.

As the discussion on globalization shows, the emergence of the pandemic threatens to reinforce these dynamics enormously — i.e. to strengthen at the same time the tendency towards globalization *and* regional differences, with consequences that can become difficult to manage. The virus knows no borders and spreads in Germany as in Ecuador, infecting individuals ev-

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31. With a very different approach, Jean-Luc Nancy (2020) claims that “The coronavirus pandemic is, on every level, a product of globalization.”

32. Cf. the interview with the immunologist Alberto Mantovani in *La Repubblica*, April 30, 2020: “In forty years of research I can’t remember a moment of more intense and transparent sharing than this.” This of course does not imply that the vaccine, once available, will be distributed everywhere at the same time — as the polemics about priorities among countries are already showing: <https://www.pharmaceutical-technology.com/news/sanofi-vaccine-us-access/>

erywhere in the same way and challenging the economy — but that does not mean that a sick person in Ecuador has the same chance of recovery as a German patient. Coronavirus is not the great leveller (Scheidel, 2018; Jones, 2020).<sup>33</sup> Not only are hospital facilities and the availability of treatment much better in Germany, but the global emergency risks increasing the difference, making the conditions of the sick in the less privileged parts of the world even worse. If prevention is less effective, more people get sick and hospitals become overloaded. If hospital beds are missing, infected persons are not hospitalized and continue to circulate, increasing the number of sick people and making the lack of beds even worse. Richer nations, moreover, can spend much higher sums in stimulus measures to keep their economies alive — not only because they have more money available, but also because global markets and investors trust them. Emerging countries often cannot afford such expenses and risk suffering over-proportionally from the economic consequences of the pandemic (Sharma, 2020).

The global dimension of the crisis does not erase local differences. The resources to tackle the problems, however, also come from globalization. Virus research requires collaboration between all laboratories around the world — and if a vaccine or treatment is found, it works for patients wherever they are. For any country it is essential that the vaccine is distributed globally, otherwise protection would not work. The discussion on Eurobonds, however exhausting, shows that economic measures to prevent recession and provide support to the population cannot avoid taking into account the mutual dependencies of national economies. The emergency will perhaps lead to a “recalibration of globalization” (A. Roberts, 2020; Boccardelli, 2020) avoiding excessive delocalization and unilateral dependencies — but it cannot lead to overcoming globalization without giving up functional differentiation and the complexity of modern society.

## 6 Conclusions

The Covid-19 pandemic highlights the need for a reference to society to understand and adequately describe the network of correlations, connections and discrepancies between the various dimensions involved in the crisis. The more differentiated the society, the more its various domains can and must be autonomous — but precisely because of this, mutual dependencies are reinforced and under emergency conditions can become risky. From the perspective of the theory of society, the attempt to coordinate the resulting complex dynamics with a unitary approach is unrealistic and can lead to increased risks. The observation of the social consequences of the Covid-19 emergency shows that the possibility of coordination lies rather in the management of differences and in the effort to increase reactivity to surprises — fostering at all levels social diversity rather than integration.

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33. Referring to differences between countries but also to differences within the same country. The consequences of the crisis tend to hit the least privileged people harder everywhere (Jones & Montale, 2020; Buchanan et al., 2020). In an article in *The New York Times*, Blow (2020) claims that “social distancing is a privilege.” Those who have less money not only have less job security and benefits but are also more at risk of becoming sick because they cannot stay at home, so it is much easier for them to lose their jobs and become even poorer (Valentino-DeVries, Lu, & Dance, 2020).



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