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SYMPOSIUM ON EXPLANATIONS AND SOCIAL ONTOLOGY 3: CAN WE DISPENSE WITH STRUCTURAL EXPLANATIONS OF SOCIAL FACTS?

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Abstract

Some social scientists and philosophers (e.g., James Coleman and Jon Elster) claim that all social facts are best explained by means of a micro-explanation. They defend a micro-reductionism in the social sciences: to explain is to provide a mechanism on the individual level.

The first aim of this paper is to challenge this view and defend the view that it has to be substituted for an explanatory pluralism with two components: (1) structural explanations of P-, O- and T-contrasts between social facts are more efficient than the competing micro-explanations; and (2) whether a plain social fact (as opposed to a contrast) is best explained in a micro-explanation or a structural explanation depends on the explanatory interest. The second aim of the paper is to show how this explanatory pluralism is compatible with ontological individualism.

This paper is motivated by our conviction that explanatory pluralism as defended by Frank Jackson and Philip Pettit is on the right track, but must be further elaborated. We want to supplement their contribution, by (1) introducing the difference between explanations of facts and explanations of contrasts; (2) giving examples from the social sciences, instead of mainly from the natural sciences or common sense knowledge; and (3) emphasizing the *pragmatic* relevance of explanations on different levels – social, psychological, biological, etc. – which is insufficiently done by Jackson and Pettit.

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1. INTRODUCTION

1.1 Social facts

To spell out the aims of this paper, we must first clarify what we mean by social facts. In our terminology, social facts are distinct from facts about individuals and "non-social" facts about populations. Facts about individuals are properties of individual human beings at some point in time or during some period of time. Facts about populations are properties of populations of at least two human beings at some point in time or during some period of time. Examples of facts about populations are:

(a) Among the Belgian population in 1983, 3.5% of those not following full-time education, had a university degree.
(b) Among the Belgian work force in 1983, 2.9% worked in the agricultural sector.
(c) In April 1861, the Confederates opened fire on Fort Sumter in Charleston, South Carolina.
(d) In Flanders 600 persons suffer from the hereditary Huntington's disease.
(e) Blood groups A and AB do not occur in the Australian aboriginal population.

Examples (a)–(c) are instances of what we call social facts, because

> they obtain or largely obtain in virtue of the intentional attitudes – the beliefs, desires, and the like – of a number of people; and/or the effects of such attitudes: the actions which the attitudes occasion and the consequences of those actions. (Jackson and Pettit 1992b, p. 97)

The last two examples are not social facts. These non-social facts form a subclass of facts that are not normally explained by social scientists although their social consequences might be of interest to them. The criterion suggested by Jackson and Pettit seems adequate to demarcate the current research interests of social scientists from those of, for example, population geneticists.

1.2 Explanations of (contrasts between) social facts

In general, we can distinguish at least four types of explanatory questions:

> Why does object *a* have property P?
> Why does object *a* have property P, rather than P'?

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Why does object *a* have property P, while *b* has property P′?
Why does object *a* have property P at time *t*, but P′ at time *t*′?

P and P′ are supposed to be mutually exclusive (i.e., P′ implies ¬P). The first type of question is a request for an explanation of a *fact*, while the other types request an explanation of a *contrast*, respectively a P-contrast (contrast in the property that is considered), an O-contrast (contrast between two objects) and a T-contrast (contrast within the same object between two points of time). Let us look at some examples of contrasts between social facts. A social scientist can try to explain why the number of smokers in the world today is lower than 10 years ago, why the birth-rate in Western countries in 1999 was lower than in 1900, why the persecution of witches in Europe was worse in 1600 than in 1500, or why the Soviet Union has withdrawn its troops from Afghanistan. In these examples the question relates to a T-contrast: within the same social group, the value of the relevant variable has changed over time, and we ask where this contrast comes from. In O-contrasts we compare two social groups. For instance, we can ask why the crime rate in Australia is lower than in the USA. A P-contrast compares an actual property of the object *a* with another property object *a* does not have. For instance, we can try to explain why only 57.5% of the Belgian population between the ages of 15 and 65 has work rather than 70%.

The distinction between explanations of facts and explanations of contrasts is not uncontroversial. We want to defend the view that explanations of facts must be distinguished from explanations of contrasts against scholars who are convinced that every explanation of a social fact can be analysed as an explanation of an explicit or implicit contrast (e.g., van Fraassen, 1980, p. 130 and Ylikoski, 2001, p. 31).[1]

The underlying motivation for asking the plain (non-contrastive) question could be, among others, (i) to show how a social phenomenon is constituted by individuals whose behaviour is the result of their rational decision making and nonrational psychological processes, or (ii) to show how a social phenomenon was causally determined by (i.e., the unavoidable consequence of) other social facts. Contrastive questions, on the other hand, are typically motivated by ''therapy'' and/or ''unexpectedness''. Contrastive questions can indicate a therapeutic need: they request that we isolate causes which help us to reach an ideal (P-contrast) or to remove an observed difference (T- and O-contrast). For instance, we can try to explain why, in the year 2000 only 57.5% of the Belgian

[1] In the process of developing an explanation it could be that contrastive thinking is involved (as an inherent feature of reasoning?) in the small steps leading towards the explanation (as a product), but this does not lead us to the conclusion that all explanations are contrastive, or to the conclusion that all explanation-seeking questions can be analysed as contrastive.

population between the ages of 15 and 65 was in work, while the European Union advocated a figure of 70%. Secondly, contrastive questions can arise when things are not what they were expected to be. We can try to explain why the Belgian employment rate is 57.5% rather than an expected 61%, the European Union average.

We do not consider the four motivations mentioned as the only possible ones, but we do believe they are omnipresent in social science practice. This article will focus on how the variety of explanatory interests results in a variety of explanatory information that is requested and, thus, in a variety of structures of explanation. We consider only four possible motivations because this suffices to develop our argument. The existence of additional explanatory interests can only strengthen this argument.

1.3 Aim and structure of this article

Explanations of social facts and contrasts between them can be divided into two broad kinds: micro-explanations and structural explanations (or macro-explanations). While micro-explanations use micro-states (the intentional attitudes of the members of the population, or other (non-intentional) facts about the individuals in the population) as explanans, structural explanations stay on the macro-level: they explain (contrasts between) social facts by invoking other social facts. Some social scientists and philosophers (e.g., James Coleman and Jon Elster) claim that structural explanations are superfluous: all social facts and contrasts between social facts are best explained by means of a micro-explanation.

The first aim of this paper is to argue that this reductionism is wrong and that it must be substituted by an explanatory pluralism with two components:

(1) Structural explanations of P-, O- and T-contrasts between social facts are more efficient than the competing micro-explanations.
(2) Whether a plain social fact (as opposed to a contrast) is best explained in a micro-explanation or a structural explanation depends on the explanatory interest: the four possible motivations mentioned above lead to different formats.

Sections 2–4 deal with efficient and non-efficient explanations of contrasts of social facts (one type of contrast in each section). In Section 5 we argue for pluralism with respect to explanations of plain facts.

The second aim of our paper is to show how our explanatory pluralism is compatible with ontological individualism. This will be done in Section 6.

As is clear from our aims, this paper is motivated by our conviction that the explanatory pluralism as defended by Frank Jackson and Philip

Pettit (Jackson and Pettit 1992a and 1992b; Pettit 1993) is on the right track, but must be further elaborated. In our view, their major shortcomings are that:

(1) they neglect the difference between explanations of facts and explanations of contrasts;
(2) the examples by which they argue could be made more convincing by taking more examples from the social sciences instead of mainly from the natural sciences or common sense knowledge; and
(3) although Philip Pettit (1993) gives an account of the potential causal relevance of all levels – social, psychological, biological, etc. – in his causal fundamentalism (see Section 6), he does not emphasize the pragmatic relevance of the different levels.

2. EXPLAINING P-CONTRASTS BETWEEN SOCIAL FACTS

2.1 Example

Suppose we want to explain why only 57.5% of the Belgian population between the ages of 15 and 65 is in work, whereas the European Union advocates a figure of 70%.[2] Several structural explanations of this contrast are possible:

Structural explanations of too low employment rate
(1) Belgium shows a lag in the development of special programmes which enable unemployed people to fill skill gaps; such special programmes reduce unemployment.
(2) Belgium lacks lifelong learning initiatives and a framework to combine this lifelong learning with working; such initiatives and frameworks reduce unemployment.
(3) Belgian employment services do not have a Europe-wide database, so they cannot give unemployed people information about available jobs and learning opportunities outside Belgium; such information would reduce the unemployment rate in Belgium.
(4) Measures that help to reconcile working life and family life (such as childcare provision) remain underdeveloped in Belgium; such measures reduce the unemployment rate.

Each structural explanation uses a causal relation between two variables and a contrast in the cause-variable in order to explain a contrast in the effect-variable. The explanations are complementary: each one suggests a therapy for reducing the contrast. Removing the contrast completely might require a combination of therapies. Each explanation also suggests

[2] Our example is based on the conclusions of the Lisbon European Council, held in March 2000, where the Member States of the European Union drew up employment guidelines at Community level and planned to translate them into national employment action plans.

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one reason why our expectation (that Belgium would live up to the EU-average of 61%) was wrong. Understanding our mistake may require all explanations, so there is complementarity in this context too.

A micro-explanation of the same contrast would look as follows:

Micro-explanation of too low employment rate
(U_1) Mark Sorgeloos is unemployed because his knowledge of computers is outdated.
(U_2) Greet De Smet is unemployed because she cannot find proper child care.
(U_3) Jean Boulanger is unemployed because he lacks the adequate training required for the vacancies in his region.
(U_4) Mireille Lecoq is unemployed because in her region there are no jobs meeting her skills available.
. . .
(U_m) Individual U_m is unemployed because of C_m.
(Aggr) The people whose unemployment is explained in (U_1)–(U_m) constitute 12.5% of the Belgian work force; if they were employed, Belgium would reach the ideal figure of 70%.

The factor mentioned in each individual's case is the factor that makes the difference: without that factor the person would have a job. If no such factor existed, the explanation should specify a set of factors that jointly makes the difference.

We have a set of structural explanations and a micro-explanation that can do the same job. The question is which approach is the most efficient. The answer is quite clear. Structural explanations are more efficient because:

(1) They are easier to construct: we do not need specific information about the causes of each individual's unemployment.
(2) Micro-explanations are misleading: each micro-explanation specifies one way to remove the contrast. The numerous other possibilities, involving different samples of unemployed people, are neglected.

2.2 General discussion

In explaining a P-contrast of the form ''Why does object *a* have property P, rather than P'?'' we can provide a structural explanation or a micro-explanation. A structural explanation of the contrast that population A has property P rather than P′ has one of the following forms:

(I) Population A has property P, rather than P′ because it has the causally relevant property D
or
Population A has property P, rather than P′ because the value of the causally relevant variable D is too high/low.

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The first format occurs when the variables are qualitative, the second when the variables are quantitative. A micro-explanation of the same contrast has the following format:

(II) (A_1) Individual a_1 is in state not-B because of C_1.
($A2$) Individual a_2 is in state not-B because of C_2.
. . .
(A_m) Individual a_m is in state not-B because of C_m.
(Aggr) If the people whose state is explained in (A_1)–(A_m) had been in state B, population A would have had property P′ instead of P.

Constructions of form (I) are always more efficient than (II) because:

(1) They are easier to construct: we do not need specific information about individuals.
(2) Micro-explanations are misleading: each micro-explanation specifies one way to remove the contrast. The numerous other possibilities, involving other individuals, are neglected. The micro-explanation does not give any information about the sensitivity of the macro-state to changes in the micro-state. It picks one specific set of micro-changes that is sufficient to provoke a change at the macro-level. It does not tell us which other perturbations at the micro-level would produce the same change in the macro-state, and which perturbations would produce no change or a different change in the macro-state.

3. EXPLAINING O-CONTRASTS BETWEEN SOCIAL FACTS

3.1 Example

Suppose we want to explain the fact (reported in Clarke (1996) on the basis of a speed monitoring programme containing 21.9 million observations) that truckers exceed the speed limit more often than car drivers: $P_T(E) > P_C(E)$. Several structural explanations of this contrast are possible:

Structural explanations of speed limit contrast
(1) Truckers more often have a radar detector [$P_T(R) > P_C(R)$] and having a radar detector is a positive cause of exceeding the speed limit.
(2) Truckers more often have a CB radio by which they can be warned [$P_T(CB) > P_C(CB)$] and having a CB radio is a positive cause of exceeding the speed limit.
(3) The income of truckers more often depends on the number of miles they drive [$P_T(I) > P_C(I)$] and being in a situation in which your income depends on the number of miles you drive is a positive cause of exceeding the speed limit.

As elaborated in the example in Section 2.1, each structural explanation uses a causal relation between two types of social facts and a contrast in

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the cause-variable in order to explain a contrast in the effect-variable. Again, the explanations are complementary: each one suggest a therapy for reducing the contrast. Removing the contrast completely might require a combination of therapies.

A possible micro-explanation of the same contrast is:

Micro-explanation of speed limit contrast
(T_1) Trucker John Freeway exceeded the speed limit because he has a CB radio.
(T_2) Trucker Eric Tucker exceeded the speed limit because he has a radar detector.
(T_3) Trucker Bill Smith exceeded the speed limit because his income depends on the number of miles he drives.
...
(T_m) Trucker a_m exceeded the speed limit because of C_m.
(Aggr) If the truckers whose offences are explained in (T_1)–(T_m) had obeyed the speed limit, then $P_T(E)$ and $P_C(E)$ would be identical.

The structural approach is superior to the micro-approach for the reasons explained in 2.2. We do not need any specific information about John Freeway, Eric Tucker, etc. Gathering this information would be cumbersome. Furthermore, the micro-explanation uses one sample of truckers to explain the contrast, neglecting all the other possible samples.

The (methodological) claim that structural explanations are more efficient is compatible with the (ontological) claim that the causal claims that are used in them often ''presuppose'' a rational actor story. As we will argue in Section 6, mixing up ontological and methodological claims must be avoided. In this example we must be aware that the causal claims in the structural explanations can be justified without reference to the individual ontological level. So we can use these claims in explanations without knowing the rational story that underlies them (the only minimum requirement is that we are in a position to tell a proximate intentional story, see Section 6.3.2).

3.2 General discussion

In explaining an O-contrast of the form 'Why does object *a* have property P, while *b* has property P'?' we can provide a structural explanation or a micro-explanation. In general, a structural explanation of *why population A has property P, while population Z has property P'* has one of the following formats:

(III) Population A has property P while population Z has property P′ because it has the causally relevant property D which Z does not have.
or
Population A has property P while Z has property P′ because the

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values of the causally relevant variable D differ from the value of the same variable in Z.

The first format occurs when the variables are qualitative, the second when the variables are quantitative. A micro-explanation of the same contrast has the following format:

(IV) (A_1) Individual a_1 is in state not-B because of C_1.
(A_2) Individual a_2 is in state not-B because of C_2.
. . .
(A_m) Individual a_m is in state not-B because of C_2.
(Aggr) If the people whose state is explained in (A_1)–(A_m) had been in state B, population A would have had property P′, just like population Z.

Constructions of form (III) are always better than (IV) because of the two reasons mentioned in 2.2.

4. EXPLAINING T-CONTRASTS BETWEEN SOCIAL FACTS

4.1 Example

By using comparative methods, Theda Skocpol (1979) has formulated a structural explanation for three successful modern social revolutions in agrarian-bureaucratic monarchies (the French, Russian and Chinese revolutions). The structural conditions that, in her view, make a revolution possible relate to the incapacitation of the central state's machinery, especially the weakening of the state's repressive capacity. This weakening is caused by external military (and economic) pressure: because of the backward agrarian economy and the power of the landed upper class in the agrarian-bureaucratic monarchy, the attempt to increase the military power leads to a fiscal crisis. Escalating international competition and humiliations symbolized, in particular, by unexpected defeats in wars (which inspired autocratic authorities to attempt reforms) trigger social revolutions. These macroscopic causal relations can explain T-contrasts.

The foreign military pressures that triggered the respective social revolutions, were:

- Bourbon *France* (1787–89): financially exhausted after the American War of Independence and because of the competition with England in general.
- Romanov *Russia* (1917): massive defeats in World War I.
- Manchu *China* (1911–16): Sino–Japanese War (1895) and the Boxer debacle (1899–1901).

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The structural analysis can explain the T-contrast by revealing the relevant difference in the causal history in an efficient and non-redundant way and selecting the information needed out of the enormous number of historical facts. This does not mean that the factors at stake are entirely independent of individual considerations. However, the individual mechanisms do not have to be made explicit in order to make the macro-explanation acceptable. So we reject the micro-foundational requirement stated by, for example, Little (1994).

That a micro-explanation is less efficient in explaining contrasts does not imply that it is useless: it can provide different information, namely, about the mechanisms at work in the historical period preceding the revolution. See Section 5 for details.

4.2 General discussion

To explain a T-contrast of the form "Why does object *a* have property P at time *t*, but P′ at time *t*′?" we can provide a structural explanation or a micro-explanation. A structural explanation of the T-contrast that *population A has property P at t, but P′ at t′* has one of the following formats:

(V) Population A has property P at *t* but P′ at *t*′ because it had property D in the relevant time interval preceding *t*, while this property was absent in the relevant time interval preceding *t*′.
or
Population A has property P at *t*, but P′ at *t*′ because in the relevant time interval preceding *t*, the value of the causally relevant variable D differed from the value of the same variable in the relevant time interval preceding *t*′.

A micro-explanation of the same contrast would look as follows:

(VI) (A_1) Individual a_1 was in state not-B in period T because of C_1.
(A_2) Individual a_2 was in state not-B in period T because of C_2.
(A_3) Individual a_3 was in state not-B in period T because of C_3.
. . .
(A_m) Individual a_m was in state not-B in period T because of C_1,...,C_m.
(Aggr) If the people whose state is explained in (A_1)–(A_m) had been in state B in T, population A would have had property P′ at *t* (and not only at *t*′).

The structural approach is superior to the micro-approach for the reasons explained in 2.2.

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5. EXPLAINING SOCIAL FACTS

5.1 Example

To provide an example of explaining a plain social fact we go back to the trucker example in Section 3.1. A micro-explanation of the fact that the proportion of truckers exceeding the speed limit is r (formally: $P_T(E)=r$) would look as follows:

Micro-explanation of $P_T(E) = r$
(T_1) John Freeway exceeded the speed limit because of $C_{t11},\ldots,C_{t1n}$.
(T_2) Eric Tucker exceeded the speed limit because of $C_{t21},\ldots,C_{t2n}$.
. . .
(T_m) Individual a_m exceeded the speed limit because of $C_{tm1},\ldots,C_{tmn}$.
T^*_1) Bill Smith did not exceed the speed limit because of $C_{t^*11},\ldots,C_{t^*1n}$.
(T^*_2) Martha Ricci did not exceed the speed limit because of $C_{t^*21},\ldots,C_{t^*2n}$.
. . .
(T^*_m) Individual a^*_m did not exceed the speed limit because of $C_{t^*m1},\ldots,C_{t^*mn}$.
(Aggr) The distribution between offenders and non-offenders as explained in (T_1)–(T^*_m) entails that $P_T(E) = r$.

A structural explanation of the same fact would be:

Structural explanation of $P_T(E) = r$.
(1) Having a radar detector is a positive cause of exceeding the speed limit.
(2) $P_T(R) = x_1$, $P_T(\neg R) = 1-x_1$.
(3) $P_T(E \mid R) = x_2$, $P_T(E \mid \neg R) = x_3$.
(4) $r = P_T(R)(P_T(E \mid R) + P_T(\neg R)(P_T(E \mid \neg R)$.

Taken together, (1)–(4) allow us to show that $P_T(E) = r$ was a necessary consequence of the distribution of the cause-variable R and the strength of the influence of this variable (as given by $P_T(E \mid R)$ and $P_T(E \mid \neg R)$). The micro-explanation does something completely different: it shows how the ratio of offending truckers is constituted by individual truckers whose behaviour is the result of their rational decision making or nonrational psychological processes.

5.2 General discussion

Explaining a plain social fact by answering a question of the form ''Why does object *a* have property P?'' could lead to a micro-explanation or a structural explanation. In general, a micro-explanation of the fact that population A has property P has the following format:

(VII) (A_1) Individual a_1 has done B because of $C_{a11},\ldots,C_{a1n}$.
(A_2) Individual a_2 has done B because of $C_{a21},\ldots,C_{a2n}$.

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...
(A_m) Individual a_m has done B because of $C_{am1},...,C_{amn}$.
(A^*_1) Individual a^*_1 has done not-B because of $C_{a^*11},...,C_{a^*1n}$.
(A^*_2) Individual a^*_2 has done not-B because of $C_{a^*21},...,C_{a^*2n}$.
...
(A^*_m) Individual a^*_m has done not-B because of $C_{a^*m1},...,C_{a^*mn}$.
(Aggr) The distribution between B and not-B as explained in (A_1)–(A^*_m) entails that population A has property P.

The general format of a structural explanation of a social fact of type $P_A(E)=r$ is:

(VIII) (1) C is a positive cause of E.
(2) $P_A(C) = x_1$, $P_A(\neg C) = 1-x_1$.
(3) $P_A(E \mid C) = x_2$, $P_A(E \mid \neg C) = x_3$.
(4) $r = P_A(C)\ (P_A(E \mid C) + P_A(\neg 5C)\ (P_A(E \mid \neg C)$.

Which format is adequate depends on the context. Explanations of form (VII) show how a social phenomenon is constituted by individuals whose behaviour is the result of their rational decision making and nonrational psychological processes. Explanations of format (VIII) show how a social phenomenon can be understood as caused by (i.e., the unavoidable consequence of) other social facts and regularities.

6. ONTOLOGICAL AND METHODOLOGICAL INDIVIDUALISM

6.1 Methodological individualism

In this section we will show how the structural explanations of contrasts (and the related explanatory pluralism) are compatible with ontological individualism. First, we consider the argument of methodological individualists. An interesting contribution to methodological individualism comes from some contemporary (sophisticated) reductionists, that have the *social mechanisms* approach in common: when it comes to macro-social events, to explain is to provide a mechanism on the individual level.[3] Jon Elster formulates the reductionistic idea as follows:

> In the social sciences, the elementary events are individual actions, including mental acts such as belief formation. To explain an event is to give an account of why it happened. Usually, and always ultimately, this takes the form of citing an earlier event as the cause of the event we want to explain, together with some account of the causal mechanism connecting the two events. (Elster, 1989, p.3)

[3] Some social scientists promoting this approach can be found in: Hedström and Swedberg (1998), including James Coleman, Jon Elster, Raymond Boudon, etc.

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So, by concentrating on mechanisms (which always have to pass the individual level) ''*one captures the dynamic aspect of scientific explanation: the urge to produce explanations of ever finer grain*.''[4] (Elster, 1989, p.7)

We notice that social scientists supporting the social mechanisms approach, emphasize the importance of the micro-level in providing explanations, ignoring the possible usefulness of structural (macro-level) explanations. Like other reductionists, they assume that (1) the cause of social change lies in individual action; and (2) causal explanations of social change should be in terms of individual actions. Statement (1) defends *ontological individualism*: the analysis of causation in social change refers to individuals and their properties; irreducible social entities do not exist; statement (2) defends *methodological individualism*: causal explanations of social facts should be in terms of individual actions (and other micro-states); and both statements are considered ''natural'' allies.

6.2 ONTOLOGICAL INDIVIDUALISM AND METHODOLOGICAL INDIVIDUALISM

Jon Elster claimed that causal explanations of social facts must be in terms of individual decisions and actions. We claim that this choice for methodological individualism is based on the link with ontological individualism, the ''natural'' ally (see above). It seems to us that the separation between ontological and methodological matters is not clear enough.

Defending a methodological preference for structural explanations, for example, Skocpol's explanation of revolutions (Section 4.1) does not imply that structural factors which are invoked are ontologically independent of individual actions and other individual properties. In the speed limit example, claiming that a structural explanation is possible and the most appropriate is compatible with claiming that the causal relations (e.g., positive effect of radar detectors) are determined at the individual level.

The seemingly inevitable link between ontological and methodological individualism could be the reason why many social scientists reject the possibility of a structural explanation, because it would be

[4] This would not only support individual explanations over structural explanations, but also neurophysiological explanations over individual psychological explanations and so on, until we reach the fundamental physical level. Jon Elster, though, uses fine-grain in a social science debate between structural level and individual level. This does not imply that his reductionism goes all the way up to the physical level. See Robert Nozick's (1977) article on Austrian methodology, in which he states that methodological individualism opposes reductionist claims other than the reduction of social science theories to theories of individual human action.

inconsistent with ontological individualism in which they believe. In our view, adherence to ontological individualism does not entail methodological individualism, which does not imply it has no methodological impact at all.

6.3 Causal fundamentalism and methodological pluralism[5]

Therefore, we will try to show that our explanatory pluralism is compatible with ontological individualism. We will first explain the ontological point of view called *causal fundamentalism*.

6.3.1 Causal fundamentalism states that the causal regularities at higher levels – chemical, biological, psychological, and social – supervene on the regularities and background conditions that obtain at the physical level. So, all non-physical causal regularities supervene on the regularities and related conditions that actually obtain at the physical level.[6]

Endorsing this causal fundamentalism means that there cannot be a conflict between non-physical regularities – e.g., the conflict between intentional and structural regularities. Ontological discussions in social sciences between ontological individualists and collectivists are based precisely on this assumed conflict between the intentional and the structural. But, as the underlying physical regularities form a coherent set, and, if their fixation means that the intentional and that the structural regularities are both wholly in place, then those two sets of regularities cannot conflict with one another (Pettit, 1993, p. 149). We must, therefore, reject ontological views that oppose individual and structural powers, views that claim that one level (be it the individual or the structural) overrides the other. If they were to go in different directions, then the physical powers would be acting against themselves.

The conclusion of this reasoning is that ontological individualism is right after all: not because there are no structural regularities, and not because intentional regularities override social-structural regularities. It is simply that, as causal fundamentalism tells us, physical powers fix the pattern of powers and regularities that rule at all levels, which means that there must be a harmony between levels. "*It cannot be the case that structural powers ever cause the intentional to be suspended or ever deprive*

[5] We rely on Jackson and Pettit (1992a) and Pettit (1993) in this paragraph. They use explanatory *ecumenism* instead of *pluralism*.

[6] "The notion of the physical level is an idealisation. Physics is conceived of as the general or comprehensive science, the science that deals with everything in the familiar world, unlike the special sciences that concentrate on entities large enough to have a chemical character, organised enough to count as living, and so on. (. . .) And I assume that physics, or at least the complete physics, encompasses all the relevant properties, intrinsic and relational, of those parts: all the properties relevant to how the parts behave." (Pettit, 1993, p. 148.)

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individuals of the autarchy associated with the rule of the intentional'' (Pettit, 1993, p. 152).

6.3.2 This defence of ontological individualism, however, does not entail a preference for methodological individualism. We want to defend the view that both factors – the intentional and the structural – have potential causal relevance and an explanatory interest: the opposition between methodological individualism and collectivism is false and we want to replace it with methodological pluralism. This methodological pluralism defends the view that there are distinctively interesting sorts of explanation to be found at different, non-physical levels. Explanations at these levels offer us causally relevant information that is not available from physical explanations and these different non-physical sorts of explanation offer us different forms of information. Sections 2–4 of this article illustrate how useful structural explanations are in explaining P-, O- and T-contrasts between social facts, while Section 5 shows the causal relevance of micro-explanations. Considering the useful causal information we get from contrast-explanations, we must conclude that Elster's view that we are supposed to prefer finer-grained explanations – and if going to lower levels reveals finer grain, then we should always prefer a lower-level explanation to a higher-level one – does not hold. Depending on our questions, the structure of the explanation will be adapted.

As structural explanations are not inconsistent with ontological individualism, we conclude that both structural and individualist explanations are acceptable and indispensable. Explanations at both the structural and individual level could provide useful causal information. The only methodological impact our ontological point of view has – as there can never be a conflict between intentional and structural regularities – is that when formulating explanations of a structural kind we must be able to see, *''in our intentional psychology of people, why the type of linkage involved is likely to be reliable. But the capacity to see this does not mean that for any structural (or historicist) explanation we offer, we will be in a position to tell a proximate intentional story, even an intentional story of a quantificational or statistical kind''* (Pettit, 1993, p. 263). As such, supervenience stresses the connection between micro- and macro-causation and explanation, and the idea that the selection of explanatory factors on the macro-level, in principle, can be tested by analysing the explanatory factors on the micro-level.

7. CONCLUSION

In general, our views are compatible with the explanatory *ecumenism* (their term for *pluralism*) defended in Jackson and Pettit (1992a). They

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assume that defenders of the small-grain preference[7] (the preference for micro-explanations of social facts) envisage the following:

> First premise: to explain is to provide information on the causal history of what is to be explained. Second premise: we provide better information on causal history as we identify smaller grain and therefore greater detail in the relevant causal structure. Conclusion: as we identify smaller degrees of grain in the relevant causal structure, we provide better explanations. (Jackson and Pettit, 1992a, p. 12)

Jackson and Pettit accept the first premise and reject the second (because by finding smaller and smaller levels of causal grain, we lose so-called comparative information[8]). We endorse their criticism of the second premise, but we think the first one is mistaken too. Explanations are answers to questions. These questions could be provoked both by theoretical considerations and practical problems or motives. Instead of merely giving (any) information about the causal history, the format of an explanation and the information it provides must depend on the question it is supposed to answer. As such, the information provided is a selection of causal factors, resulting in adequate explanatory factors (explanatory relevance depends on both causal relevance and pragmatic relevance). By choosing this starting-point, we can separate the contexts in which contrastive information is important from the contexts in which giving up contrastive information in favour of other types of information is the appropriate way. These differences in the pragmatic relevance of different explanations as elaborated in the distinction between explanations of facts and explanations of contrasts are unsatisfactorily dealt with by Jackson and Pettit.

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[7] Jackson and Pettit (1992a) argue against the fine-grain preference which they regard as composed of the small-grain preference and the close-grain preference (the claim that causal explanations at a certain temporal remove are inferior to more proximate accounts). In this article we have dealt with the small-grain preference, but we have developed a similar approach to argue against the close-grain preference, see Jeroen Van Bouwel and Erik Weber (2002).

[8] Jackson and Pettit distinguish *comparative* information from *contrastive*; we have to emphasize that contrastive information (in their sense) is *not* the kind of information you need to explain the contrasts as we have defined them. (Their use of the terms *comparative* and *contrastive* invites confusion as *contrastive* has been used by Dretske (1972) in a similar way to their *comparative*.)

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