Individual features and efficiency of conversion in the Capability Approach

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Introduction

A person is held captive together with his newborn child and both are denied all forms of nutrition. She is facing enormous pain and distress, but she is willing to prolong her own suffering rather than taking in consideration cannibalism as an alternative to death. Analysing this situation through the lenses of standard capability theory one would have to conclude one of the following: either the prisoner does not have the capability to be nourished because a socialisation bias prevents her to see cannibalism as a viable option, or she has chosen to refuse such option after having weighed the consequences of her alternatives. In the first case the person is constrained by one of her own features, which we may call conversion factors, while in the latter she makes a choice. Although the two interpretations might seem equivalent, I believe that the lack of a definitive answer ultimately proves an interesting fact about the Capability Approach (CA): that the separation between choices and conversion factors is less straightforward than traditionally portrayed. This in turn highlights the confusion surrounding the concept of conversion factors, which is indeed complicated by the lack of a straightforward definition of the latter. In the capabilitarian literature the enunciation of this important piece of its whole architecture is commonly addressed by listing examples of conversion factors and presenting a taxonomy, which I will henceforth refer to as the 'traditional' one (Sen, 1999; 2005; 2009; Kuklys, 2005; Robeyns, 2005; 2011; Osmani, 2009; Crocker and Robeyns, 2010). This taxonomy, which divides them into three categories (personal, social and environmental), is often employed to define conversion factors through their classification, but is not a definition per se and for this reason it proves to be incapable of differentiating them from choices.

As the example above has suggested, one symptom of the malaise caused by the indeterminacy of the capabilitarian interpretation of freedom is the tension that sometimes arises between the roles of conversion factors and choices. Let us first of all examine this symptom by looking at the role of conversion factors and choices. Both of them are transposing elements of the CA architecture,
meaning that both are responsible for the transposition of other elements (conversion factors transpose resources into capabilities, while choices transpose capabilities into functionings), but they are designed to play two significantly different roles. In mathematical terms we may say that they can both be expressed in terms of functions, albeit two different ones. Moreover, while choices operate on a set of options that are available to the agent and transform them into realisations, conversion factors generate precisely the set of available options from the set of resources that the agent possesses. Capabilities, therefore, seem to originate from the fact that choices and conversion factors are distinct entities, or functions: if this is the case, though, we shall be able to point out the differences between them without recurring to the purpose they serve within the CA architecture, or mathematically, without any reference to the sets on which they operate.

Although the type of research that capability scholars have carried out on the topics of conversion factors and choices has been mainly empirical (Brandolini and D'Alessio, 1998; Kuklys, 2005; Chiappero Martinetti and Salardi, 2008), we can formulate a tentative conceptual line of reasoning concerning what features distinguish the two. As anticipated, one may interpret both as functions: one relating a set of resources with a set of available alternatives, the other relating the set of available alternatives with a set of realisations, but since we are searching for a distinction that makes no reference to those sets, we must look elsewhere. At this stage we may be tempted to say that choices express the agent's preferences, while conversion factors do not. In spite of its plausibility, this interpretation hides a major obstacle, which concerns the relationship between preferences and choices that Amartya Sen has envisioned in his works on rational choice theory. According to Sen (1973; 1977; 1997), an agent's preferences over a set of options may not be, and often is not, revealed in her choices, and this happens for a number of reasons that are discussed at length in Sen's aforementioned works on rationality and economic behaviour, and that I shall not consider now.

Some will disagree on the possibility and necessity to build bridges between the contributions of Amartya Sen in such different fields, but I believe both that linking them is possible, thanks to the contiguity and compatibility of Sen's writings, and that only taken as a whole they may reveal their full scope. In the case that we are currently examining, we shall therefore bring on board of the CA another tenet of Sen's analysis: namely, the idea that preferences are not reflected perfectly in choices. If preferences are not the determinant of choices – at least not their only determinant - then the former cannot help us discriminate between conversion factors and choices. Indeed, the CA is perfectly compatible with situations in which an agent choses a certain option disregarding whatever we might agree to call her true preferences, and similarly with situations in which elements that determine the conversion efficiency of an agent's resources into capabilities depend to some degree on her preferences. For example, an agent might have a preference for some of her
socio-cultural features, which influence her life in ways that are not selected by herself and therefore cannot be interpreted as choices, but which we may want to include among conversion factors. In particular it is worth noting that one's choices are largely influenced by one's conditions – i.e. conversion factors – and the two are therefore highly entangled, thus leading to uncertainty in their identification. Given this apparently irreconcilable ambiguity, I suggest to look for a possible answer in a more precise conceptualisation of the idea of conversion factors, which I set out to do in the following sections.

1. Towards a more proper definition of conversion factors

There is a surprising lack of clarity surrounding the concept of conversion factors within the CA. Perhaps the closest we have gotten to a definition of this important concept is the following passage from Robeyns (2011): '(t)he conversion factors thus represent how much functioning one can get out of a good or service; [for] example, how much mobility the person can get out of a bicycle'. Although helpful in sketching a portrait of their purpose, even Robeyn's attempt is not a sufficiently detailed account of conversion factors: it somehow misses the target of a fully fledged definition by mistaking them for the conversion efficiency (or rate of conversion) by which they are characterised. Analogously Sen (1999) defined them as 'the sources of variation between our real incomes and the advantages [...] we get out of them' (p. 70): although more precise, Sen's definition does not help us differentiating conversion factors from other sources of variation (e.g. choices). Conversion factors therefore remain a particularly foggy component of the CA architecture which deserves to be clarified with more precision. The purpose of this section is to highlight some of the issues with the interpretation of conversion factors that make them a slippery subject, and to possibly solve them.

One first issue within the traditional narration of conversion factors concerns its lack of homogeneity. First of all, among conversion factors are often included both general categories of human features, and instances or components of those general categories, which create confusion and double counting. For example Robeyns (2005, p.99) cites among conversion factors both 'metabolism' and 'physical condition', but offers no practical solution as to how to avoid that the effects of the former are also considered within the larger domain of the latter. Similarly, 'climate' and 'geographical location' (Robeyns, 2005, p.99) are two highly intertwined phenomena, and it is therefore problematic that the relationship among the two is not acknowledged and regulated by means of practical epistemological solutions (e.g. by specifying the non geographical effects of climate). Although I do not aim at taking a precise stance on the degree of generality to be

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1 I interpret general categories and instances of those categories as sets and subsets: mixing the two when listing conversion factors might be detrimental to the overall clarity of the explanatory effort.
employed in classifying conversion factors, I argue that some coherence on this issue within the literature would be beneficial and increase the chances to better grasp the nature and scope of conversion factors.

Another type of dishomogeneity lies in the literature's lack of coordination about whether the concept of conversion factor should be a neutral or value-laden one. For example, Kuklys (2005, p.11) juxtaposes a neutral category such as 'sex' with a negatively charged one such as 'physical disabilities', thereby creating a tension between the interpretation of conversion factors as features (e.g. sex), and as negative features – or constraints – (e.g. physical disabilities). Such tension, I believe, hinders the clarity and strength of capabilitarian arguments that rely on the idea of human diversity by presenting a confusing interpretation of the sources of such diversity. Once again I suggest to increase such clarity and strength through greater coherence. What shall then be the right interpretation of conversion factors? Shall we define them so to include neutral characteristics of the lives of individuals or rather the sources of their obstacles? Kuklys (2005, p.11) seems to favour the latter, asserting that 'they can ... be interpreted as non-monetary constraints on the individual', while Robeyns (2000, p.5), instead, interprets them neutrally as 'characteristics'. In order to avoid any loss in the generality of the CA, I shall support the latter interpretation and move, for the moment, towards the following definition: conversion factors are the defining features of an agent's life.

The choice of this preliminary definition follows an intuition that Amartya Sen, at the beginning of the second chapter of Commodities and Capabilities, attributes to Gorman (1980) and Lancaster (1966): namely that it is through command over commodities' features, rather than commodities per se, that individuals are able to satisfy their needs. If we agree that features of resources are the means through which people can profit from them to obtain something, then it is reasonable to consider people's features as their counterpart on the agent's side. According to the theoretical advancement proposed by Gorman and Lancaster, in fact, a coconut is a resource characterised by a variety of properties; similarly, I argue, people are characterised by multiple features that allow them to interact with resources in order to satisfy their needs. A coconut is both potential food, thanks to its nutrient composition, and a possible weapon thanks to its weight and hard shell, and just like neither features would suffice to grasp its entire nature, similarly people are not simply women or men, buddhist, catholic or muslim, old or young, but all of their features combined. In the process of transformation of resources into functionings conceptualised by the CA, the resources' relevant features interact with their relevant counterparts on the agent's side: it is throughout the features of individuals that the relevant properties of resources are transformed into functionings.

Going back to our previous example, a coconut can be transformed into nutrition by the interaction of its nutrient composition with the agent's metabolism (Figure 1), or into a wound inducing instrument through the interaction of its weight with the agent's physical strength.
Figure 1 is a simplistic representation of the correspondence and affinity between the features of resources – as theorised by Gorman, (1980) and Lancaster, (1966) – and the features of agents, which, as I have previously argued, constitute the latter's conversion factors. As the picture shows, agents are characterised by a wide range of features which combine with commodities' features in order to produce functionings: complex functionings will more likely require the combination of multiple agent features with multiple features of commodities – or the features of multiple commodities. In order to move forward in our attempt to conceptualise conversion factors, we shall now turn to a classification of possible types.

2. A new taxonomy

If conversion factors are the defining features of agents' lives, then we must ask ourselves what type of features exist and how they contribute to the process of capability and functioning creation: in order to do so, I will introduce a criterion for the classification of features that will help to bring clarity to debate on conversion factors. Although a consensus exists in the capability literature on a standard classification of conversion factors, which was first designed in its current form by Kuklys (2005) and Robeyns (2005), I believe that such interpretation is imprecise and limited in scope, and

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2 An older version of the taxonomy, which included only personal and social conversion factors, was presented by Robeyns (2000).
therefore calls for some adjustments. The main argument in favour of revising the traditional taxonomy is that the latter is universally employed as an explanatory tool to introduce conversion factors, and often as an alternative to an actual definition itself. In order to solve part of the confusion surrounding the concept of conversion factors, it is therefore equally important to produce a robust definition and a precise taxonomical instrument. Before delving into the solution, though, let me first introduce the standard classification and highlight its limits and flaws.

2.1 The traditional approach

The standard classification criteria (see Sen, 1999; 2005; 2009; Kuklys, 2005; Robeyns, 2005; Osmani, 2009; Crocker and Robeyns, 2010) is based on mixing information relevant to the locus of influence of each conversion factor and their nature. The aforementioned authors agree on the idea that conversion factors are best organised under the personal, social, and environmental categories, to which Amartya Sen adds another one (relational position) which is mostly ignored in the literature. Needless to say, the first type of factor takes place within the individual, the second comes from society, and the third manifests itself in the natural environment that hosts the individual. Personal factors are portrayed as the 'mental and physical aspects [...] such as disabilities or bodily vulnerabilities [that] affect the types and degrees of capabilities one can generate with resources' (Robeyns, 2008; p. 85). The locational character of the standard classification is all the more evident in Crocker and Robeyns (2010), where the authors describe personal factors as being 'internal to the person' (p. 68). Social conversion factors are described with even less precision: Robeyns (2008) vaguely refers to the fact that they are 'determined by a number of societal aspects, such as social institutions, social norms, traditions and behaviour of others in society' (p. 85). They are alternatively but not less vaguely described in Crocker and Robeyns (2010) as 'factors from the society in which one lives' (p. 68). The final category, environmental conversion factors, is left to symbolise all the physical, natural and geographical elements of the world surrounding the individual (Crocker and Robeyns, 2010; Robeyns, 2008).

Despite its intuitive appeal, such classification presents a major shortcoming: it increases, rather than reducing ambiguity, by mixing together the locational and typological traits of conversion factors. Essentially the traditional taxonomy generates categories that are spurious, meaning that each of them belongs to two separate domains (locus of influence and type of conversion factor) rather than a single one. Although there is nothing wrong with the idea of putting together two

3 Although Sen's contribution deserves attention both for the pioneering nature of his work and the importance of individuals' relational position vis à vis each others (which he theorised following Adam Smith's inspiration), the latter has not found a relevant place within other authors' taxonomies. Regardless of his fundamental role in conceptualising the idea of conversion factors (which he termed 'contingent circumstances', 'contingencies' or 'heterogeneities'), I will focus on the taxonomy that is more prominently featured in the literature (Kuklys, 2005; Robeyns, 2005; 2011), which ignores relational conversion factors.
different domains in the classification of a concept, the lack of a explicit discussion on this idea has led to a great deal of confusion, which advocates of the capability approach have traditionally resolved by turning to the approach's underdeterminedness as a strength rather than a weakness. On the contrary I believe that in this case the lack of clarification undermines the chances of the capability approach to presents itself as a reliable theory.

In order to clarify this point, let us focus on the meaning of each category in the taxonomy. As mentioned before, personal factors are one's mental and physical aspects that affect the capabilities that she/he can generate. Personal in this sense must therefore be interpreted in opposition to anything that does not belong to the individual, meaning that it is external to it; hence it implies a locational character. Environmental is a category that includes natural (physical/geographical) factors that do not belong to the individual per se, while social factors are those that derive from social aspects. Different interpretations of environmental and social factors are possible: first of all they may be interpreted as two kinds (natural and social) of factors that are external to the individual. In this case the traditional taxonomy would be inappropriate because while contextual factors are divided into social and natural, such distinction does not apply to personal ones, thus causing both a lack of specificity for an important type of factors such as personal ones and an overall lack of symmetry. Alternatively one may interpret social factors as features that are not external to the agent, but differently from personal ones arise from social – hence non-natural – aspects. This would imply that personal and social are both individual factors whose difference lies in their causal origins, while environmental factors would be left to symbolise all factors that do not belong to the individual in the narrow sense. This interpretation is similarly asymmetric, but its validity is also hindered by the difficulty to discuss matters of causality independently from a sound normative theory.

While the following section will clarify this idea, for the moment it will be sufficient to note that a weak conversion factors taxonomy is major obstacle to the full development of the capability approach, not only because it cannot offer ground to develop a greater informational basis, but also because it hinders our understanding of a concept that seeks part of its identity in the taxonomy itself. While the nature of a concept should be identified throughout its actual definition, in fact, it has become a common practice in the foundational contributions to the literature on the capability approach (Kuklys, 2005; Robeyns, 2005; 2011; Osmani, 2009; Crocker and Robeyns, 2010) to identify conversion factors starting from their classification, rather than from a proper definition. Creating a robust taxonomy, therefore, is all the more important for conversion factors because the latter have remained so far an unclear component of the CA.
2.2 Locus and type: an alternative classification criteria

The classification of conversion factors that I hereby propose is explicitly bi-dimensional, as opposed to the standard one, whose character was one-dimensional, albeit spuriously so. More specifically, the taxonomy that I propose classifies conversion factors (i.e. the defining features of agents' lives\(^4\)) along the same two properties, the locus of influence, and the type, but does so in a more orderly manner. The first axis, *locus of influence*, captures the location where each factor exerts its effect. Along this axis, human features are divided between personal and contextual: the former being features that characterise the life of the individual regardless of her/his context, and the latter, features that characterise life within a context independently of who lives in it. The second axis, *type*, which is both an ontological and epistemological category, aims at separating factors deriving from phenomena whose direct influence on the individual is social from factors originating from phenomena whose direct influence on the individual is natural. The ensuing description will clarify the rationales behind the choice of such bi-dimensional classification, as well as the resulting list of possible varieties of conversion factors.

Within the CA, classifying conversion factors is important insofar as it helps coordinating information concerning the following questions: given agents' material resources, how free are they to live the kind of life they value and have reason to value? What can be done to improve their condition? The first is an evaluative question, while the second aims at the design of policies and proposals for social change in society, both of which constitute the core of the CA mission (Robeyns, 2005, p. 94). In order to answer these questions, I suggest to take in consideration the two causal edges of each conversion factor, namely their causes and consequences. We shall be cautious in using such terms because, as anticipate in Section 2.1 isolating causes and consequences of complex entities such as the defining features of people's lives requires the adoption of a particular doctrine or theory that allows to allocate responsibility in an unambiguous manner. Think for example about isolating the causes of the high crime rates in certain regions of the world: are criminals' genetic psychological traits to be blamed, or shall we blame their parents for the education they received? If we opt for the latter, are parents themselves the cause, or shall we look deeper, perhaps at the socio-economic conditions in which they lived – and deeper again, at the causes of those conditions? The same complexity arises when looking for consequences of conversion factors: all kinds of phenomena have repercussions that often outlive their own lifespan, thus making the task of delimiting consequences elusive, if not downright logically impossible. For this reason, instead of aiming for causes and consequences themselves, I suggest we rather settle for information about conversion factors' inputs and outputs, which the bi-dimensional taxonomy

\(^4\) Following from the tentative definition of conversion factors given above, I will employ the term features and (conversion) factors as synonyms.
introduced here is designed to take into consideration. Inputs and outputs shall be interpreted as a watered-down version of causes and consequences, the former being the conditions contributing to bring about a certain conversion factor, whereas the latter are the conditions that tend to be brought about by them. Let us now see how the concepts of inputs and outputs relate to the two axis of the bi-dimensional taxonomy presented here.

The rationale behind the distinction along the “locus of influence” axis is perhaps easiest to explain given the preceding argument in favour of the bi-dimensional taxonomy. It is relevant to classify conversion factors on the basis of where they eventuate because it organises information concerning their outputs: the same feature will have different consequences on the agent depending on whether it applies to her/himself or to his/her context. Thus, separating personal features from contextual ones allows to organise information concerning the type of consequences they will tend to have. Obviously personal features in this new interpretation are not to be confused with personal conversion factors as interpreted in the old taxonomy, because the latter is designed to oppose both social and environmental factors, while the former has a more precise locational interpretation. Take for example Derek – a Canadian white supremacist man – and Angela – an African-American woman in nineteenth century United States. One feature that is common to the lives of both Derek and Angela is racism, but while in the first case it applies at the personal level, in the second it applies at the context. Derek is racist and lives in a mostly non-racist context, whereas Angela faces racism as a feature of the context in which she lives: needless to say, the consequences that the two situations have on the individuals are rather different. Personal features essentially identify parts of the individual's life which are constitutive of her/his identity, whereas contextual features do not, hence the latter tend to be escaped at a lesser cost by simply changing one's context.

The “type” axis, instead, offers the opportunity to organise information about the other end of the causal spectrum, namely the one relating to conversion factors's input. Since determining with precision the causal origin of a phenomenon would entail a perilous and troublesome exercise, I suggest to turn to its nature – which, in order to avoid redundancies, I call “type”. In fact, along this axis features are divided into social and natural types, implying that they depend on phenomena whose direct influence on the individual can be studied, in the case of the former, in the realm of social sciences, whereas in the case of the latter, in that of natural sciences. Social features are for example literacy, legal and political circumstances, and religion, whereas natural features could be, among others, climatic circumstances, physical health, sex and age. At this stage it is important to

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5 The debate on the escapability of one's conversion factors is an important one and also relevant to the evaluation of consequences that the locus of influence axis seeks to produce. Nevertheless, it constitutes a complex subject which requires the adoption of a precise theory of freedom (see Carter, 1999; 2014 and Kramer, 2003) and is beyond the scope of the present essay. At this stage it will suffice to note that one's personal features are parts of the individual and tend to require a greater effort to be escaped, while contextual features can be avoided by “simply” relocating to a different context.
stress that, despite the “type” axis is concerned with the origin of conversion factors, the classification is based on the effect – rather than the cause(s) – of phenomena that generate those conversion factors. In order to explore the last point, let us take in consideration a natural feature such as climatic circumstances: their causes are largely natural, but not entirely. For example, the effect of greenhouse gases on climate change has a nature component but their origins are largely social – meaning they depend on human interactions. Nevertheless, even though the origins of the phenomena that lead to climatic circumstances are mixed, the effect of those phenomena are purely natural, and this represents the determinant of their type. I must also emphasise that only the direct effect of phenomena, rather than the whole set of its consequences, plays a role in differentiating between social and natural types: in the case of climatic circumstances, the latter have undeniably social effects on people's lives\(^6\), which nevertheless are not direct.

### 2.3 Comparing the traditional and bi-dimensional taxonomies

For the bi-dimensional taxonomy introduced above to actually come into effect, the two dimensions (locus of influence and type) must intersect, generating a matrix as shown in Table 1. Hence, from the intersection of these two dimensions, four categories of conversion factors arise, each representing a unique region of the “locus-type” space: 1) natural-personal, 2) social-personal, 3) natural-contextual, and 4) social contextual. Before analysing how a classification along these lines compares to the traditional taxonomy introduced in the sections above, let us briefly scrutinise the four categories. The first category – natural-personal, or bioanthropological features – concerns conversion factors originating from phenomena whose direct effect on the individual is natural (henceforth natural phenomena), and which act at the individual level, such as one's sex, age and physical health. The second category of conversion factors – social-personal or socio-behavioural features – also act at the individual level, but concerns social phenomena, such as one's religion, or educational level. The third and fourth categories – natural-contextual, or environmental features, and social-contextual, or societal features – both involve conversion factors that identify the individual's context: the natural environment for what concerns the former, and the social sphere for the latter. Environmental features include climatic circumstances, animal population and vegetation, whereas societal features are for example political circumstances and social norms.

As it will be clear from the choice of denominations that the bi-dimensional taxonomy employs, the latter shares some similarities with the traditional one purported among others by Kuklys (2005) and Robeyns (2005). If one was to compare the categories presented by these two authors with those of the bi-dimensional taxonomy, one would find a close correspondence in the contextual

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\(^6\) For example, climate change may induce people to change their behaviour – thereby having a social effect – but that comes as a consequence of the direct effect, which is natural.
domain. Indeed, environmental conversion factors are conceived so to include climate and geographical location (Robeyns, 2005) or proximity of rivers and pollution (Kuklys, 2005), and they clearly they correspond to natural-contextual features in the bi-dimensional taxonomy. On the other hand, social conversion factors, which are presented so to include social hierarchies and power relations (Robeyns, 2005) or population density and legal regulations (Kuklys, 2005), correspond to social-contextual features. Personal features, instead, are treated by the traditional classification as a single category which is not separated into social and natural components. This element of the traditional classification is not a superficial facet, but rather constitutes a substantial difference from the bi-dimensional one and, I believe, makes the latter a preferable taxonomical tool.

Table 1. The bi-dimensional taxonomy: locus-type space

<table>
<thead>
<tr>
<th>TYPE</th>
<th>Natural</th>
<th>Social</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal</td>
<td>bioanthropological</td>
<td>socio-behavioural</td>
</tr>
<tr>
<td>Contextual</td>
<td>environmental</td>
<td>societal</td>
</tr>
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</table>

Source: author's own elaboration

The two taxonomies, indeed, are very similar, but the lack of a clearcut distinction between natural and social features within the personal domain affects the degree of clarity and specificity of the traditional classification. Mixing together the two types of personal features cannot be supported alongside the distinction between social and natural types in the contextual domain for reasons that include the lack of symmetry in the representation of the two locus of influence. Perhaps the authors thought that personal features are better interpreted as a unique category because they delimit the area within which intervention by the policy maker would result in paternalistic interference: this might imply that differentiating the two types is not normatively relevant because of their equally inviolable nature. If a similar reason would be the rationale behind the choice of Kuklys (2005) and Robeyns (2005), two problems would persist.

First of all, neither of the authors mentions such reason as the principle guiding the asymmetry between personal and contextual domain. As anticipated, the whole discussion on conversion factors in the capabilitarian literature generally amounts to a few lines that fall short of a proper
definition, followed by a tentative taxonomy that is often briefly sketched and whose justification is entirely missing. The division of conversion factors into personal, social and environmental is perhaps interpreted by the authors as self-explanatory, but that, I believe, is hardly the case: as much as any other part of the CA architecture, defining and classifying conversion factors on the basis of a transparent motivation is important to provide its normative arguments with a robust foundation.

Secondly, the inviolable nature of individuals' personal characteristics may serve as a motivation against differentiating between social and natural ones if the only scope of a taxonomy was to guide policy making, but as anticipated, this is not the case. We might prefer to keep public policies out of the personal sphere that includes elements which define an agent's life, but together with guiding policy advising, other objectives of the CA deserve attention. In fact, as Robeyns (2005) notes, conceptualisation and evaluation of human conditions are also relevant endeavours, which may or may not ultimately support decision making with the aim of improving those conditions. Even if the division of personal conversion factors into social and natural features was deemed normatively irrelevant to inform policy makers, it would still matter to distinguish them for evaluative exercises and, as I will argue henceforth, to conceptualise the process of capability and functioning creation. In the following section, in fact, I will present a sketch of the idea that the significance of human features as conversion factors lies not in their own isolated effect, but rather on their mutual intersection, in the light of which a precise and thorough taxonomy is all the more important.

3. Intersectionality and relativity

In order to fully grasp the significance of the conversion of resources into functionings we must note that all features of an agent's life interact in complex ways to determine the conversion of her/his commodities into her/his functionings, and that precisely such complex interaction turns them into conversion factors. The process of conversion of resources is characterised by a particular degree of efficiency – which can be high or low, albeit in relative terms – which depends on the way single features interact with each other. Taken individually, single features such as one's age, religion, physical and mental health, or one's context's climatic circumstances, are ontologically meaningless with respect to the creation of capabilities: they are parts of a complex system whose individual elements are only meaningful from an epistemological point of view. Our interpretation of features as single isolated entities comes from our tendency to simplify reality by separating its components. By doing so, though, we end up losing a great deal of information about the actual

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7 Interpreting individual features as meaningful per se would consist in neglecting the ontology of social phenomena, and treat single elements of those phenomena as isolated atoms, like the single elements of natural phenomena. For a more in-depth look at the concept of ontological neglect, see Lawson (2015).
entity, unless we are aware of the processes through which its components fuse together in the original compound.

The ontological significance of one's features in the process of capability creation, therefore, depends on their intersection; I shall refer to this property of human features as “intersectionality”. The term is not new in the sociological literature: it has been previously employed within feminist research to highlight the fact that some forms of discrimination may combine together to form a more powerful entity than the sum of its components. Crenshaw (1989), who pioneered research in this field, for example, discusses the importance of recognising the intersectionality of gender and racial discrimination towards afro-american women. Crenshaw (1989) points out that 'because the intersectional experience is greater than the sum of racism and sexism, any analysis that does not take intersectionality into account cannot sufficiently address the particular manner in which Black women are subordinated' (p. 140). In a similar fashion, the conditions in which people live cannot be sufficiently understood in absence of a framework which accounts for the combination of their different features. Although my interpretation of intersectionality clearly draws inspiration from such literature, I shall consider my endeavour an independent one. Moreover, the intersectional approach also helps to unveil another interesting way to look at the capability approach, namely relativity. According to relativity, the quality and meaning of each conversion factor is not absolute: it depends indeed on whatever functioning is considered at each time. Following this intuition, relativity becomes a crucial determinant of the whole approach according to which a functioning represents the focal point of the process of conversion. Let us now explore the substance and implications for the Capability Approach and conversion factors firstly of intersectionality and secondly of relativity.

3.1 The process of conversion as the intersection of features

Intersectionality in the CA can be defined as the property of human features which requires them to mutually intersect in order to develop into actual conversion factors. From this definition follows the idea that the meaningfulness of features in the process of capabilities and functionings creation lies in their interaction, in absence of which they “merely” consist of the identifying traits of an agent's life. Generally we may be able to anticipate whether a certain feature will have a “positive” or “negative” effect on the creation of a certain capability, but its effect will depend largely on its interaction with other contingent circumstances. In fact, as Sen (2009, p. 256) points out, 'there can also be some ‘coupling’ of disadvantages between different sources of deprivation':

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8 Given McCall's (2005) categorisation of intersectionality, my research fits perhaps more closely 'intercategorical complexity', as I do not reject the value of single features per se; rather, I suggest that considered in isolation they cannot satisfactorily describe human conditions and only through intersectionality their true value can be understood.
although in this case Sen refers specifically to poverty eradication, his analysis can be applied to the interpretation of conversion factors within the capabilitarian perspective as a whole.

This implies that individual features taken separately and independently from others cannot be said to possess a specific efficiency of conversion. For example, blindness is rightfully considered a physical impairment that decreases the efficiency of conversion of resources into opportunities to live a flourishing life. Nevertheless, blindness in itself does not determine the efficiency of conversion of resources into the chance to live a flourishing life: as many notable examples could prove, the disparity in opportunities available to equally blind people cannot be explained as a consequence of the different availability of material resources alone. Therefore, in order to understand the actual impact of blindness on one's life we must look at its combination with all her/his other relevant features. We can anticipate that sometimes features may substantially alter others, whereas other times they may simply offset each other's impact – or reinforce it – but different features will always intersect, thus becoming conversion factors. This interpretation of single human features as devoid of any specific efficiency of conversion fits particularly well the definition that was given above of conversion factors as neutral elements rather than abilities and disabilities. Sex, for example is a bioanthropological feature whose instances are neither positive or negative, but they may assume value when coupled with other features of the individual's life. If we focus on the freedom to move around freely, for example, being a woman might combine negatively with societal features that apply within regions where gender inequality favours men. On the other hand, the effect of being a man on the freedom to move around freely may be offset by one's age, given that elderly people struggle with mobility irrespectively of their sex, perhaps because of another bioanthropological feature (their physical health), an environmental (the fact that they live in a region characterised by hostile weather), or a societal one (the fact that they leave in a dangerous area). In order to bring further clarity to this interpretation of conversion factors, let us now analyse how their intersection may come about.

Although conversion factors can be interpreted from a mathematical point of view as functions, their interaction cannot be thought of as one of the mathematical operations: indeed, the effect of features' interaction cannot be depicted in terms of multiplication-division, let alone addition-subtraction. Instead, the interaction of features must be interpreted as a complex phenomenon. Since in reality single features do not exist in isolation, but only as a cluster of intertwined elements, and since the effect of single features within the cluster cannot be decomposed, we must refrain from seeking precise rules of interaction, especially by means of mathematical and econometric methods. In fact, as Lawson (2015) argues, although the results of similar exercises might be statistically relevant, the ontology of social phenomena is not characterised by the regularities that mathematical methods require in order to be employed with success. Hence, in order to shed some light on the
concept of conversion factors, we shall be contented with identifying patterns of aggregation of features, rather than looking for precise coefficients deduced from methods whose fortune outside the natural sciences is dubious. Even though the purpose of this section is to introduce the idea of intersectionality within the capability approach, and not to delve into a fully fledged analysis of its implications, it may be useful to look at possible types of feature interaction in order to better grasp the concept presented here.

B. is a 65 years old widowed Serbian woman living in Italy in a small flat with her disabled daughter; she has inherited a modest sum of money and is occasionally employed as a housekeeper, but her financial security is threatened by expensive medical treatments for her daughter and her mortgage payments. Since she is the owner of a residential property, she is not entitled to poverty subsidies that would otherwise be granted to people in her condition. Although it is clear from the outset that B. is in dire straits, in order to fully understand her circumstances it is important to focus on the role played by the interaction of her features rather than each of her features' impact individually. For example, since B. is a woman, at certain times she will be prevented from walking around her neighbourhood by its high crime rates; within the capability to move around freely, indeed, a high crime rate in one's area is a negative feature, and its effect is bolstered by B.'s personal traits. She has a job, which is a positive feature from the point of view of her economic stability, but the expenses she incurs offset such positive effect thus reducing her efficiency in converting her resources into the capability to be financially secure. Moreover, B.'s ownership of a residential property implies that, given Italy's poverty benefit regulation, she is not entitled to a particular type of financial support that would otherwise be granted to her. Therefore, one of B.'s personal features that might appear as an advantage at first, actually combines with a feature of her context and further reduces her conversion efficiency of resources into the capability to be financially secure. As this example shows, some features may at first appear to be favourable, but under closer scrutiny present themselves as a part of – or instrumental to – the agent's state of deprivation. The example also shows that the intersection of features, especially between personal and contextual ones, is crucial: neither B.'s gender nor the widespread criminality in her neighbourhood alone determine her scarce freedom to go out at night, but rather the two of them combined together. B.'s case illustrates how features become conversion factors only throughout their intersection, sometimes reinforcing or offsetting each others, other times merging into a whole different feature.

Needless to say, I believe that econometric and statistical exercises, when employed with proper caution, can still prove to be useful and effective in identifying important patterns. This is the case, for example, of Kuklys (2005) whose effort, albeit resting on mathematical techniques, was decisive in understanding the role of disabilities within the larger domain of deprivation.

For example, the feature 'being in possess of a residential property' and the feature 'denial of economic subsidies to owners of residential properties' merge, creating the feature 'impossibility to obtain economic subsidies'. Although they relate to material resources (which in the capabilitarian architecture is a separate element from conversion
3.2 Relativity in the Capability Approach

Another interesting aspect of the intersectional interpretation of conversion factors that is starting to emerge from the examples presented above is that the way in which individuals with given features convert resources into functionings is not constant in every situation. In fact, the conversion efficiency of features\(^\text{11}\) may vary not only according to the way they interact, but also in relation to the different functionings that are considered at each time. A thin body is generally considered a desirable feature in a world where certain aesthetic features are treated as virtues, but the value of a thin body depends on the goal one is actually going after: in the case of the goal of winning a sumo match, a thin body possesses very little value.

In this respect, every functioning can be interpreted as the focal point of the process of transformation of one's resources into outcomes: each functioning constitutes a different focal point generating its own frame of reference\(^\text{12}\). A frame of reference, in turn, is a system characterised by specific rules of interaction between agents' features and resources, and among features themselves, which together determine the actual conversion efficiency of the latter. Essentially, the conversion of resources into outcomes according to the CA implies a relativistic architecture based on the centrality of functionings, each characterised by a different frame of reference in which specific rules of interaction apply. For example, within the frame of reference whose functioning is 'being a great sumo wrestler', a lean body structure converts one's resources less efficiently than a heavier one, but the converse is true when the frame of reference is shifted towards the functioning 'running a marathon'. The new focal point, in fact, generates a different frame of reference from the previous one, under which some rules have changed: for example the rule 'greater body weight is better' applies to the sumo frame of reference, but not to the marathon one. Other rules, such as 'greater endurance is better', will survive the frame shift, which is not surprising, considering that the focal points of both frames imply success in the practice of a competitive sport activity where endurance is key. Therefore, since the CA is a relativistic system, there is no way to judge one's features either positively or negatively without mentioning the functioning into which resources are converted by one's features. We may conclude, in simpler terms, that the quality of every feature depends on the functioning that is being considered at each time.

\(^{11}\) As we have seen, features in themselves cannot be considered efficient in converting resources because they do not do so individually, but rather in combination with other features. For simplicity, I will nevertheless employ the idea of features' efficiency of conversion.

\(^{12}\) Osmani (2009) describes the space of outcomes as constituted by agency and wellbeing goals – both achieved and potential ones. Although I consider such interpretation both useful and congruous, at this stage of my enquiry it will suffice to say that resources can be turned into outcomes; some of them will take the form of functionings, while others of capabilities. Essentially interpreting functionings as the focal point implies that capabilities are a subset of functionings – namely, un-realised ones.
Concluding remarks

With the present essay I have attempted to fill some of the gaps that were left in the literature on the Capability Approach concerning the role of conversion factors. First of all, I have tried to resolve part of the ambiguities created by the absence of a proper definition of such a crucial element of the capabilitarian architecture. In doing so I have suggested to consider them as the defining features of an agent's life, which helped to isolate them from other entities, such as choices, that might be confused with them due to the inherently open theoretical framework of the Capability Approach. Together with such tentative definition, I have tackled the issue of conversion factors' lack of specificity by suggesting a new taxonomy that takes in consideration two elements of human features: their locus of influence and their type (or nature). The main advancement produced by this taxonomy with respect to the traditional one entails the recognition of both personal and contextual features, and of both natural and social ones, whose combination determines the characteristics of every human feature. This taxonomy creates possibilities to better evaluate human conditions by allowing to select certain traits rather than others, and opens up the chance to study the way in which different characteristics of conversion factors may contribute to vary the access to capabilities and functionings.

Another important contribution of this essay is the analysis of conversion factors as a whole, rather than individually. In the last section, in fact, I have introduced the concept of intersectionality, which I have borrowed from the sociological literature, and which suggests that features of individuals' lives become conversion factors only through their interaction with one another. Taken individually, features have an abstract meaning: to be 94 years old, to live in a desert, to be a woman, all these may help to shape one's efficiency of conversion of resources into capabilities (or functionings), but they become actual conversion factors only through the process of mutual intersection. Therefore my search for an independent definition must stop with the conclusion that conversion factors are the defining features of an agent's life that combine themselves in a process of mutual intersection. It could be argued that, from the ontological point of view, individual conversion factors do not exist, and that what is there instead is a rate of conversion which depends on the combination of every single characteristic of an individual's life. While not incorrect, the latter argument can be contrasted with the idea that individual conversion factors still exist from the epistemological point of view, and that is very relevant within the Capability Approach, because it is at the level of individual factors that we can find solutions to the issues faced by humanity.

Finally, intersectionality has brought about a new perspective to think of conversion factors and the Capability Approach: relativity. According to relativity, single features and entities within
the Capability Approach – including conversion factors – do not have a meaning per se, but rather in relation to specific frames of references, which depend on whatever functioning, or group of functionings, is considered at each time. As the example presented above shows, features are neither positive or negative in themselves, but assume a particular meaning (in the case of conversion factors, a particular efficiency) depending on what goal the individual is going after at any specific time. Although the concept of relativity further increases the complexity introduced by intersectionality, I strongly believe that the evolution of the Capability Approach towards a less controversial and more easily applicable discipline will depend on its willingness to relinquish some of its traditional indeterminacy and provide a more specific framework. If that requires to deal with a greater degree of complexity, so be it.

References


