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How does inclusive design relate to good design?

Designing as a deliberative enterprise

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Abstract. Underlying the development of inclusive design approaches seems to be the assumption that inclusivity automatically leads to good design. What good design means, however, and how this relates to inclusivity, is unclear. In this paper, we try to shed light on these questions and, doing so, provide an argument for conceiving design as a deliberative enterprise. We point out how inclusivity and normative objectivity can be reconciled, by defining the norm of good design in terms of a deliberative cooperation between designers and the people they design for. In this view, a design is inclusive when it is produced by exploiting the information and competences at the disposal of the designer and the people she designs for in qualified circumstances.

Keywords: epistemology, evaluation, user participation, philosophy of design

In recent years, the design community has witnessed the development of several design approaches based on inclusivity. Depending on the continent or region, these approaches are called Universal Design (US and Japan), Inclusive Design (UK), or Design for All (Continental Europe). Underlying these approaches seems to be the (implicit or explicit) assumption that inclusivity automatically leads or contributes to good (or better) design. For example, in an article about the seven principles of Universal Design, Rosemarie Rossetti writes: "*Simply put, universal design is good design!*" (Rossetti, 2010). Similarly, Beth Tauke posted a podcast on YouTube entitled "*Universal Design = Good Design*". However, what is meant by good design, and how this relates to inclusivity, is not very clear.

This paper tries to shed some light on the issue by unravelling a more general question underlying it. Reduced to its general form, the question about the relationship between quality and inclusivity in design is relevant to every activity that has a normative dimension: who is to set the standards? Should the norms be decided by the best knower or by the people? This leads to two other fundamental questions: what is there to know? And who is the best knower?

1 Inclusivity and Quality in Design

Inclusive design denotes "*a general approach to designing in which designers ensure that their products and services address the needs of the widest possible audience, irrespective of age or ability*" (Design Council, 2009). Or, formulated slightly differently, "*design*

of mainstream products and/or services that are accessible to, and usable by, people with the widest range of abilities within the widest range of situations without the need for special adaptation or design" (BS 7000-6, 2005).

The link between inclusive design and good design can be confronted in different ways. One way is to exploit a restricted cognitivist definition of good design as something objective that professionals can recognize. As a consequence, it has to be admitted that good design does not necessarily converge with design meeting the needs of the widest possible audience. In architecture, for example, professional journals that publish recent architectural work and award-winning projects rarely go beyond visual description and analysis (Cuff, 1991). As Dana Cuff observes (1989, p.314): "*In glossy photographs, there are no signs of clients or inhabitants – the "right" furniture is brought in by truck from the architect's home or office, put neatly in place for the photographs, and then removed. The text is typically written by an architect-critic, and virtually never by an occupant, owner or client. Architectural journals present architecture in text and image as* objet d'art*, separate from the people who commission and inhabit them.*" This presentation does not say much about their accessibility to and usability by people with the widest range of abilities in the widest ranges of situations. Similarly, "*[c]omments from the juries for design awards display a lack of concern for clients, the building's functions, or the accommodation of human activity*" (Cuff, 1989, p.311-312). In this first view, the norm of good design is in the professionals' hands,

and inclusivity plays no role in it: if a design turns out to be inclusive, then good and well; if not, that does not make any difference in the appreciation of its design quality. Here the link between inclusive and good design (and between an inclusive and non-inclusive idea of design) is in fact minimal, since there is no relationship between both; there is no real link, but just two different perspectives: a normative one that is interested in what good design is, and a non-normative one that is interested in matching design features and user capabilities, even if this results in design that professionals consider worthless or inferior.

A second way to confront the link between inclusive and good design is to contest the idea that there is something objectively good that is recognized by the professionals. In this markedly non-cognitivist view, it makes no sense to say a design is good or bad outside the fact that it is preferred or rejected by some audience: since there is nothing objectively good to know out there, what is "good" is nothing but what people choose. To say it bluntly, inclusivity is the norm, not quality in any objective sense.

The link between inclusive and good design, however, can be confronted in a third way by trying to reconcile objectivity and inclusivity, so that we do not need to choose between the alternatives sketched above. Dana Cuff's (1991) perspective can be seen as one attempt to do so. In her book *Architecture: The Story of Practice*, Cuff (1991, p.196) *"define[s] design quality as a phenomenological entity perceived by individuals, not as an inherent quality of the object or building. Thus design quality is dependent upon those who*

make the judgement of the quality." She maintains that there are three principal evaluators of any building's quality: "*the consumers or the public at large, the participants in the design process, and the architectural profession*" (ibid.) In her view, "*an excellent building design is one perceived to be excellent by all three of these groups*" (ibid., p.196). In other words, when a project to which the profession attributes high design quality is also well-liked by their makers and the public, then it would be called excellent in Cuff's view (ibid., p.197).

2 On ontological and epistemological objectivity

In the different views on the link between inclusive design and good design, the notion of objectivity in play is both ontological and epistemological. The general notion of objectivity can be defined as mind-independence: something is objective if it does not depend on a mind (Nagel, 1986). Objectivity, however, can be seen as an ontological feature of things, properties and states of affairs, or it can be understood as an epistemological feature of knowledge. For instance one can take a fact to be objective, as opposed to subjective, but one can also take a body of information to provide objective knowledge of something, as opposed to subjective access to certain objects or state of affairs.

As a consequence something can be said to be ontologically objective if its *existence* does not depend on a mind – for instance, trees and rocks and fish are usually supposed to be objective insofar as their existence does not depend on their being perceived, whereas

sensations and actions are ontologically subjective insofar as their existence depends on being felt and intended respectively (Searle, 1995). Of course, the definition does not in itself settle any specific case about what belongs to the ontological realm of objective entities. So it is traditionally questioned as to whether colours are ontologically objective, for instance, but space and time were also suggested to be forms of our sensibility rather than objective properties of things. Conversely, if mental properties turned out to be reducible to physical properties, sensations and actions would be discovered to be identical to brain states, and thus as ontologically objective as any other physical state.

On the other hand, something can be said to be epistemologically objective if it is cognitively accessible by anyone who is provided with the relevant information. In other words, objective knowledge is intersubjective. Scientific knowledge, for instance, is traditionally taken to be objective in this sense precisely because it contains only statements that are intersubjectively testable or communicable (Carnap, 1928). So for example, knowledge of rocks is objective because there is nothing that preclude rocks to be cognized by anyone that can be given a course in chemistry. In contrast, no course in anything can provide anyone with the first personal access I have to my pain, since the relevant information cannot be made accessible from outside my subjective experience (see *e.g.* Strawson, 1994, ch. 8). Here, again, it is difficult to determine the specific cases falling under the definition of epistemological objectivity.

Now, what seems to make the link between inclusive and good design problematic is that the norm of design is thought to be objective in both senses in the alternative views we started with. That is, both views assume that, *if* norms do exist, they must be objective in the sense that they are intrinsic to mind-independent properties of artifacts, and can be recognized by applying methods and knowledge that are accessible to anyone who is professionally trained in the appropriate way to use the relevant normative concepts. The difference between the first and the second view consists in the fact that the first accepts, whereas the second rejects the very idea that there is something like objective values involved in the assessment of design quality. Consequently, the first maintains that professionals should be credited with privileged access to the objective knowledge involved, whereas the second maintains that nothing can be granted objective knowledge where the quality of design is concerned.

Notice that, insofar as we are concerned with the normative dimension of assessing quality in design, the knowledge involved in the first view is not the empirical knowledge of some physical fact, such as the laws of physics that professionals are more likely to know best. Rather, the claim is that professionals are in the best position to gain cognitive access to the normative property of something being good design. The argument made for this claim is common in disciplines involving a normative dimension like art criticism or political philosophy, namely that the capacities and competences required to appreciate quality in design need to be developed by academic education and professional training.

The first view is dominant in what is commonly considered as quality in design. In architecture, for instance, Cuff points out that the profession attributes high quality to buildings that are published in nearly all major journals, and that receive several awards, regardless of their appreciation by the individual participants in the design process or the public (Cuff, 1991). Only the profession's appreciation counts and this precisely because quality is conceived as being ontologically objective. Ontological objectivity is supposed to require one to be educated in the profession in order to learn the concepts, methods, and specialized skills that are necessary to appreciate goodness in design. Consequently quality is assessed by objective standards that are supposed to be in the hand of the profession and can be met or missed by individual designers.

By contrast, in Dana Cuff's attempt to reconcile objectivity and inclusivity, design quality ontologically depends or supervenes on the convergent judgement among professionals, consumers, and participants in the design process, whose competences and sensibilities are supposed to differ wildly both in method and in the body of knowledge they can exploit in order to assess the quality of design. As long as in this context quality requires judgements to converge across all stakeholders, there is a sense in which it *can* be assessed intersubjectively. This suggests that, although far from being ontologically objective, design quality is not a matter of idiosyncratic preferences or taste, and it can be at least *epistemologically* objective.

In the next sections, however, we will see that inclusion must involve more than convergence in perception or judgement in order to play such a role in the assessment of design quality. We will sketch a deliberative conception of design where participation in the design process is the mark of inclusivity. Inclusion requires not just to converge *ex post* on perceiving and judging design quality, but to cooperate in the production of it. Good design will be then defined as the optimal result of an appropriately conducted deliberative process.

In order to develop this argument, we will proceed as follows. In the next section we will formulate the question about the link between inclusive and good design in its more general and traditional form. In sections 3.1 through 3.3 we will try to make explicit the issues at stake and consider in some detail the weaknesses of both views involved in the dilemma we started with. In the final section we will sketch a third way that is sympathetic with Cuff's proposal, but is recognizably deliberative in nature.

3. The basic questions

The question about the link between inclusivity and quality in design can be viewed as a special case of a very basic issue raised by Plato's view of government in the fifth book of the *Republic*.

> "Unless" said I, "either philosophers become kings in our states or those whom we now call our kings and rulers take to the pursuit of philosophy seriously and adequately, and there is a conjunction of these two things, political power and philosophic intelligence,

> while the motley horde of the natures who at present pursue either apart from the other are compulsorily excluded, there can be no cessation of troubles, dear Glaucon, for our states, nor, I fancy, for the human race either. Nor, until this happens, will this constitution which we have been expounding in theory ever be put into practice within the limits of possibility and see the light of the sun. But this is the thing that has made me so long shrink from speaking out, because I saw that it would be a very paradoxical saying. For it is not easy to see that there is no other way of happiness either for private or public life. (Republic, V, 473c-473e)

Here Plato defends the aristocratic doctrine that political government is to be entrusted to those who have true knowledge of the good. That is, not surprisingly, philosophers. As noticed by Popper, among others, this seems to clash with any liberal view of politics and of course with the substance of democratic theory. Reduced to its general form, the discussion about the relationship between inclusive and good design is thus a particular case of a very general issue that is relevant to every activity that exhibits normative dimensions: where are standards to be set, and who is in charge of the issue?

3.1 Who is to decide?

Should the norms of anything be set by the best knower, or by the people affected by the decision, no matter how poorly informed they might be about it? The first, cognitivistic claim seems to express an

aristocratic, paternalistic attitude, but also to provide reliable knowledge about the best standards to be used in a certain domain. The second looks more liberal and democratic in that it respects individual choices as expression of freedom. But it makes their assessment a practical, not a cognitive task. According to this claim, it would be misleading to represent the issue as one requiring or permitting cognitive assessment, as if it could be answered by citing some objective fact. Being good just is no objective property of things. It rather mirrors our subjective tastes and sensibilities as they look once projected onto things.[1] As a consequence, there is no fact of the matter concerning normative questions and judgements. When it comes to values, there is no truth to know, just preferences and beliefs that may wildly differ across individuals as far as tastes and sensibilities may well differ. By definition, what is good turns out to be what is chosen and the best we can do is to recognize the priority of democracy over objectivity (Rorty, 1991).[2] Here the reason why the view of the "professional" best knower can be neglected is that there is properly nothing to see except what people *de facto* want or prefer. So inclusivity may be the norm, but it is a practical, not a cognitive norm.

If we look at the discussion from this point of view, some issues outlined above look spurious, *e.g.* the alternative between appearance (which design professionals are supposed to overvalue) and accessibility or usability (to which people are supposed to be attached). Professional designers may look at usability first, rather than focus on appearance. Vice versa, people may reject a design

they find usable, for instance because it scores low on aesthetics. Finally, the very distinction between aesthetics and usability can be questioned, as people's point of view is relevant to assess the aesthetics of an artefact (a book, a picture, or a building): aesthetics just is usability of an admittedly special kind (Jauss, 1982).

So it looks like the real issue here is not the contrast between different values as such, *e.g.* aesthetics versus usability. And it is not about which value is better. In fact it is not about values at all. The real issue is: who is to decide? Assuming that aesthetics, accessibility, and usability can all be set as values to be pursued, the real problem is not the hierarchy between them. The quarrel about the priority of aesthetics, accessibility or usability as values is a kind of second order question—a question about who is to decide the value of values.[3]

One answer is that no one has better legitimacy than professionals to decide, because they possess the best knowledge available in the domain, as far as they are trained to recognize the features of an artifact that are relevant to settle the issue. Notice that, as we pointed out before, this involves not just the empirical knowledge about the physical laws underlying the functioning of a car, but the normative assessment of what it is for a car to be good – *i.e.* being fast, nice, robust, inexpensive and so on would count here as parameters only insofar as they are taken to be relevant to the normative assessment of a good car. That is they would not count as value-free characteristics, but be marked as being "good" properties for a car to have. This kind of knowledge, in other words, is not just

a piece of empirical knowledge the designer can be credited with without further question, but it is still knowledge that can be supposed to be at the disposal of the designer by virtue of her professional training in the sense we suggested in the previous section.

Another answer is that, no matter what professionals say, everyone should have what they feel meets their (perceived) needs, even if their judgements could be substantially wrong—assuming there is something to be wrong about here. On the side of the paternalists, there is an obvious argument: knowing better, one will more probably get nearer to the truth and get what is truly usable, accessible, or beautiful. On the side of the democrats, there is also a good argument. Even if we concede that there is something objective to be right about here, human cognition is fallible, so even the best knower can get it wrong (Mill, 1859).[4] However, a more radical view is also possible. There may be no objective norms to know when it comes to aesthetics, usability, or accessibility, since what we take to be good or bad does not reflect any objective fact, but rather expresses our deeper desires and concerns (Blackburn, 1989)[5]. In this case, the best policy would be to let people choose according to their desires and concerns.[6]

3.2 What is there to know?

These arguments, however, are not all on the same side and the position they support may be accordingly differentiated. As we pointed out, underlying the paternalistic position is the assumption

that there is something objective to be recognized. This is true in any field where human capabilities and sensitivities have no role to play in shaping the relevant facts. It is unlikely indeed that someone would assess the truth of Pythagoras's theorem by polls, because geometrical truths are (supposed to be) independent of what people think or desire. Hard sciences are then considered to deal with facts that are ontologically objective in the sense that human subjectivity does not enter in the picture. They do not represent the world as it looks from a certain point of view, rather they access the world as it would look, say, in a 'view from nowhere' (Nagel, 1986).

In other fields, however, assessing what is the case requires exercising some human capability and/or sensitivity, because there is no such thing as facts that obtain independently of what humans feel, think or desire. There would be no piece of art in the world if we were to subtract our capacity to judge things from the point of view of the impact they have on our sensibility according to certain cognitive capacities and cultural background. The same could be said of moral facts: arguably, nothing can count as right or wrong independently of the human capacity to suffer and sympathize.[7] As a consequence, the point of view of the subject affected or concerned is essential to shape the relevant facts: This is probably valid for design as well, since it responds to human needs, including a need for aesthetic pleasure.

Values may be seen then as secondary qualities, qualities that reflect our way of being affected by the world: they are phenomenological properties in Cuff's sense because they are

properties of things as they appear to us, rather than properties things do have in themselves (McDowell, 1985). However, this does not mean that judgements cannot strive for objectivity, as the radical view suggests. As we pointed out before, ontological and epistemological objectivity are two distinct matters. So the fact that something is ontologically subjective does not imply that the relevant facts cannot be assessed objectively, *i.e.* that it may not be epistemologically objective (Searle, 1995). Therefore there is a point in raising a claim to objective *knowledge* even in a domain where we cannot find objective *facts*. This may imply, however, that the judgment should be inclusive in order to be objective, since objectivity here can only mean universal recognition rather than correspondence with a realm of independent facts[8]. In the moral domain, for example, the sense in which our judgment may claim to be objective is by respecting some requirement for impartiality (Sen, 2009). This presupposes that in judging moral facts one assumes universal sympathy and expects that anyone would judge in the same way when provided with the relevant information. Moral objectivity does not mirror nature, it just expresses universal acceptability (Habermas, 2003). Similarly, when we assess how good the design of a bike is, we do have a person in mind—we will not design bicycles for Martians[9] without knowing how many tentacles they have. So it may turn out that the distinction between quality design and inclusive design—as sketched above—is artificial. All design needs to be inclusive in a way, because it is commensurate to people's needs. But the inclusion is to be regarded carefully. It does not imply that there

is no objective fact or standard to be acknowledged. Rather, to say that something is good in this context means that the people affected would approve it on reflection. Michelangelo's work cannot be assessed by polls, but its being classic is not a physical property. It just depends on the convergence of intersubjective judgment of experts and laypeople over time. There is no more than this in the objectivity of the judgement of taste according to Kant or in Gadamer's idea of the classic.[10] But this is all the objectivity we need in human affairs.

At a very abstract level, then, it can be said that it makes no sense to design something without a user[11] in mind: the user's perspective is shaping the very idea of "good" design. A can opener no one can use to open cans is no (good) can opener. Moreover, it can be argued that it is the user's perspective that is crucial for establishing an artefact's function (Dennett, 1990). But this does not mean that there is no fact of the matter here and it is just the people who have to judge what is good design or what is quality in design.

3.3 Who is the best knower?

In a way, this may seem to support the priority of the professionals' judgement, since they can be supposed to know better how to make up the optimal artefact. So the point of view of the art critic may enjoy some kind of prominence in assessing what counts as a piece of art. On the other hand, as far as aesthetic values rest on universal convergence under reasonably idealized circumstances, the judgements of experts are themselves subject to scrutiny. In this

sense the professionals' judgement is generally constrained by the prospect of usability—including aesthetic fruition. So, at the very least, it has to be tested on people who will use the artifact concerned. Symmetrically, as far as people's perspectives contribute to define the design target—be it a knife or a bike—they will be involved in the assessment of what counts as good or bad design. But it is not the case that any randomly chosen perspective is relevant. What is relevant is rather the perspective of an ideally informed, attentive, possibly competent user.

The assumption often seems to be that professionals possess the best possible knowledge, in other words, are the best knowers. Yet, in relation to inclusive design—design for accessibility to, and usability by, people with the widest range of abilities within the widest range of situations—it may be problematic to state that the people are ignorant (as opposed to the knowledgeable professionals); they may lack the designer's professional knowledge, but they are likely to have other kinds of knowledge. Consider, for instance, persons who are blind. Through their daily interaction with space, they are able to identify obstacles and appreciate qualities in the environment that designers are not always aware of (Herssens & Heylighen, 2011). We can take this kind of knowledge to be expressed in expertise gained by experience rather than explicitly represented in propositions. In this context, we can distinguish between *knowing how* and *knowing that*, corresponding roughly to tacit and explicit knowledge. There are many ways in which knowledge may be tacit, however. Theoretical knowledge can be

tacit too, for instance as far as a set of beliefs or specific theories are taken for granted in certain activities—*e.g.* in scientific research. The important point in this context is that the expertise we are focusing on is a kind of knowledge that is practical and first person as a matter of principle. I know *how* to ride a bike although I hardly have a clue about the relevant laws of physics and physiology: so riding a bike just escapes my knowing that it works in a physically specific way. As a consequence, I am unable to design a good bike. But professional designers may arguably develop a better bike by exploiting the know how bikers have about what it is like to ride a bike in certain conditions. Here the user's tacit knowledge guides the design, whereas the professional is in charge of transforming it in explicit knowledge so that it can be implemented.

If we turn to the example of the blind person, we can see that what people's expertise amounts to is a kind of knowing how. It could also be called "embodied knowledge" to stress the role of bodily abilities and capacities that are relevant to the topic. This knowledge is enacted practically rather than represented theoretically. In the context of our discussion, we would like to stress that it may be considered a source of information that is not at the designer's disposal in ways other than by involving people. Being "enacted" rather than represented, it may escape the designer's capacity to think about objects or spaces from the relevant point of view. So, for example, the way of experiencing space and interacting with things a blind person is expert about may escape the

professional designer's habits of thought and the technical language used to express them.[12]

The questions that arise in this context are subtle. First, the very distinction between knowing how and knowing that can be contested, although this is not relevant here.[13] Second, it may not be clear how to transform know how into know that. As we said, the former is tacit, contextual, subjective, first person knowledge. The latter is objective and descriptive. So we cannot assume that the user's competence can easily be taken as a guide to the professional designer. Moreover, it may be asked how people's subjective knowledge can be made the most of – assuming that we can make something of it.

From a theoretical point of view, a physician and an engineer will in fact know better than any potential user how a body works on a bike, so they may be less prone to over- or undervalue some relevant design issue. Now, if they need to use all possible knowledge in making the best possible bike for certain bikers, this knowledge includes relevant knowledge about the biker's needs, capacities, expertise etc. But the biker is not by *fiat* in the best position to judge. She can be wrong about her interpretation of what her needs and capacities imply for the prospect of designing an optimal bike. The point is that the subjective view is a necessary source of information, but it is not necessarily the best point of view for interpreting the information in relation to the design target: I can feel uncomfortable by riding a certain bike and can think this is because I cannot sit well on it, but in fact the problem lies elsewhere

and my bad sitting position is a distant effect of this or also depends on my insufficient biking technique.

There is, however, a way to make sense of the user's point of view. First, it can be used to assess the design, an approach adopted for many years in certain design domains (*e.g.* Cross, 1971). Some people can be trained to serve quasi professionally as an assessor in this sense. For instance, several initiatives exist to train persons living with a disability to work as consultants in building projects (*e.g.* Ringaert, 2001) or to involve them in improving buildings (*e.g.* Heylighen *et al.*, 2010, Heylighen, 2012).

Second, the information collected, filtered by the objective knowledge at disposal, can also be used in an indirect way. The professional designers may compare it with their objective knowledge, double checking every step on both sides, and using one kind of knowledge to interpret the other: people's expertise can shed light on the best way to address a design task by informing the designer about the actual conditions in which a certain artefact will work; moreover to place that expertise in the framework of the designer's professional knowledge can help to make sense of it in terms of an aim to pursue. In this sense, participation in design predictably transforms the design process because it requires a cooperative enterprise between both professionals and users.[14]

4 Discussion

How does this apply to our discussion of the relationship between quality and inclusivity in design? Two questions seem to be relevant.

One is mentioned above: how is it possible to translate the relevant knowing how or expertise gained by experience to an explicit knowing that, which can be used by designers in their practice to address the needs of the widest possible audience? On the one hand, in fact, we assume that without this information designers may not be able to articulate the problems involved in designing a product or service that takes into account the point of view of people with the widest range of abilities in the widest range of situations. On the other hand this information needs to be expressed in a way that is sufficiently explicit to be grasped by designers who do not share the specific abilities that make people subjectively acquainted with it "from within". To put it bluntly, since people are not conceptualizing their experience, but ‘living’ it, the information may be available to them in a "practical" format that is hard to communicate to others, given that they do not share the same inner experiences. To illustrate the point, Thomas Nagel (1974) exploited the intuitive difficulty we find in putting ourselves in the shoes of creatures that do not share our perceptual system: so one can be sceptical about the possibility to grasp what is like to be a bat, who uses a sonar system in order to represent spatial forms.

We do not need to draw sceptical conclusions from that, however. The question of integrating this kind of knowledge may rather call for interdisciplinary cooperation between, say, design, psychology, and neuroscience. We may need the help of a physiologist to grasp the way certain bodily feelings—which are subjective in nature—correspond to the actual physical functioning

of the body, so that the information they provide can be used to plan a design that reflects the relevant characteristics of people's experience and may in turn respond to their needs.[15] Also, it may turn out that we need to appeal to the experience of particularly attentive users in order to extract the relevant information from their experience: the average person might just not be able to articulate sufficiently, whereas that can at least be facilitated by asking a report from people who know roughly how designers work.

The second question is a possible way out of our dilemma. The dilemma was created by the impression that either you confer some kind of absolute authority to the professionals in judging what good design is, or you have to drop the very idea of a normative standard to which design can be submitted. It looked like one could have good design at the expense of inclusion, or inclusive design at the expense of good design. This is not necessarily so. The fact that we need to take into account the information provided by people with the widest range of abilities and to integrate it in the design process does not imply that people *tout court* should decide what is good or bad design. Indeed, it seems that putting the question in such an opposing way as "designers' paternalism versus democratic freedom" is to miss the issue. Taking into account the views expressed in the previous paragraph, a better prospect may well be to reformulate the very idea of the professional competence designers must develop to deal with these kind of issues, so that the relevant expertise or know how is incorporated into what is properly to be conceived as "objectively"

good design. People's role here is not that of a judge, but of a co-operator in the enterprise of getting the best possible solution, since they are in the best position to collect the relevant information.

To resort to our political metaphor, a reason to sustain democracy is not really freedom of choice, but the fact that the people affected by political decisions are in the best position to collect information about the issue at stake, both in case of normative conflicts and in case the problem is how to apply recognized norms. The information needed is objective, and so is the judgement. But people's participation to the deliberation is crucial for providing the point(s) of view from which the judgment is to be assessed. Interestingly this seems to call for a "discursive" or "deliberative" idea of democracy where the value of inclusion is cognitive rather than practical. Democracy is not just a way to collect preferences and let the most widespread of these take over, but the way to know what is just for all the individuals concerned (Habermas, 1996; Goodin, 2003; Sen, 1999).[16]

This may be the case for inclusive design as well. At least, it could be a way to escape the paradoxes raised by the opposition from which we started. This idea of a dialogic or deliberative conception of design would mean that there is no need to install designers as the "philosopher kings" in the field, nor to collapse design standards into a random list of subjective preferences itemised by the widest possible audience, irrespective of age or ability. In fact, you can have both good design and inclusion by conceiving the deliberation about what is good design as a dialogic enterprise that involves the

designer as well as the user. In this sense, the primacy of competence and the inclusion of the users' point of view are essentially connected *within* the very idea of "good" design. So you may have both good and inclusive design. Even more so, it may turn out that you cannot split the issue clearly in two; designers' competence is blank, if it is not informed by the aims to be pursued, and the users' inclusion will be worthless without being articulated in some kind of explicit knowledge. A designer will feel lost without some information about what the artefact to be designed is supposed to be used for. Correspondingly, people's needs will be nothing but subjective feelings without being interpreted in a way that makes them suitable to be responded to. So not only there is no conflict between inclusive design and good design: it may well be that one cannot have one without the other. You cannot have good design without it being inclusive and you cannot have inclusive design without it being good.

5 Conclusion

What is the relationship between inclusive design and good design, and between inclusiveness and quality in design? Starting from this question, we have tried to reveal and set straight the basic issues that underlie this question. Reduced to their general form, these questions are relevant to every activity that has a normative dimension. In the case of inclusive design, these basic questions make clear that the definitions of inclusive design adopted are underdetermined: "*designers* ensure *that their products address the needs*" (Design

Council, 2009) or "*are accessible to, or usable by people with the widest range of abilities*" (BS 7000-6, 2005). In the first one it is unclear *how* they ensure this—for example in a "paternalistic", "radical democratic" or "deliberative/dialogic" way? Neither is it clear how needs are defined—objectively or subjectively—or what the audience really wants. The second, very generic, definition at best gives an idea of the aim to be pursued, but says little about how to achieve it. Are the professionals in charge of this? Or the people? Or do they need to discuss it together? Just to mention needs and abilities does not decide the issue about the link—or the missing link—between inclusion and good design.

In analysing how this link can be confronted, we have provided a strong argument for conceiving design as a deliberative enterprise involving both designers *and* the people they design for. We have pointed out that inclusivity and normative objectivity—prima facie two opposed ideals—can be reconciled, by defining the norm of good design in terms of a deliberative cooperation between designers and users. Cuff defines design quality as being approved by consumers (or the public at large), the participants in the design process, and the design profession. Yet, the point is that designers cannot judge for themselves what is good, without taking into account the users' perspective, nor are the users' assessments beyond question, since people can go wrong in interpreting their own response. As far as design is concerned with normative questions, no one can be credited with privileged knowledge.

Our point is in fact that there is no reason to think that the professional designer enjoys a privileged access to some rather mysterious ontological realm of objective norms, but that there is nonetheless a point in vindicating the objectivity of normative judgement. On the one hand, there is nothing like an abstract realm of good design that professional training can make accessible to designers. On the other hand, the property of being good cannot be reduced to the subjective fact of being preferred. In human affairs, the objectivity of norms is rather a matter of universal acceptance, and there is good reason to think that this can be obtained as a result of public deliberation rather than be given as a fact—the fortunate fact that individuals happen to converge in preference or judgement. Accordingly, good design will likely turn out to be the result of the designers and the users *cooperating* in the design process.

This also means, however, that the bare fact that judgements happen to converge is not enough to settle the issue. Being approved is no substitute for being worthy of approval, since it does not provide by itself a justification for the converging of judgements—rather, it confines agreement to the factual coincidence of private attitudes, so that although judgements are shared, the reasons for them are not. As a consequence, no way is left to see how inclusion accounts for the emergence of normative assessment.

Here is where we depart from Cuff's account. A deliberative process does not just demand that stakeholders converge, it requires them to "construct" such convergence by cooperating in the design process, by exchanging information and arguments in a public

discussion, so that they will not just share their judgments, but also the reasons for them. Here stakeholders will not just *happen* to converge in their attitude, but *come* to converge by virtue of the *justification* they get through dialogue. Insofar as it makes room for being committed to such a public justification, a deliberative view of design seems to respond better than Cuff's proposal to the demand for reconcilying normativity and inclusivity.

To conclude, the competence to judge what is good design is not an exclusive possession of anyone, but arises by deliberative cooperation of designers and people about the issues at stake. Thus, unlike Cuff's definition, we view design quality not simply as a matter of convergence of different perspectives, but as a matter of cooperative integration. A design is excellent not when it is appreciated by both the designers and the users, but when it is produced by exploiting the information and competences at the disposal of the designer and the people she designs for in qualified circumstances.

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Endnotes

[1] Cfr. J.L. Mackie, *Ethics: inventing right and wrong*, Penguin 1991.

[2] The idea is not new, actually: a similar point was raised against Socrates by Trasimacus in *The Replublic*, 358c-359b.

[3] It may be important to stress that this question is not primarily about which kind of norms designers are to follow, *i.e.* if design is affected only by hypothetical norms of instrumental rationality or only by the categorical norm of goodness (see Oosterlaken, 2010). For instance, if we take appropriateness only to be the norm of good design and define appropriateness instrumentally as a norm concerning the means to an end, it is plain that goodness in design will be treated as a relational notion – an artefact may be appropriate only in respect of some activity to be performed by some individual in some specific circumstances (Oosterlaken, forthcoming, p. 6 ss.). In this sense design will be judged *instrumentally* good or bad relatively to the aim to be pursued. And the question remains about who is to set the aim to be pursued and the categorical norms governing them, even if these norms will be considered external to design proper, according to this instrumentalistic view of design. Not only that, the same problem will affect the hypothetical norms of instrumental rationality as well, as far as they are context sensitive. Who is to say which circumstances are relevant and which individuals are concerned – given that a knife is made to cut things, its design will be judged optimal *for someone* to cut something *in some circumstance*. And here we can just repeat the argument. The argument so far is completely general and concerns any kind of norms.

[4] In the 1960s, these ideals of participative democracy, where collective decision-making is strongly decentralized throughout all sectors of society, inspired the design community to engage in participatory design, that is to involve non-designers (occupants, users) in the design process (Sanoff, 2007).

[5] This does not mean that it is not possible to argue about the issue, it only means that the assessment would ultimately rest on the consideration of some subjective attitude towards the object, rather than on some objective property of it. The point here is not that "anything goes" in this case, but rather that we seem to have no source of normativity other than the subjective attitudes of the participants.

[6] Last, but not least, experts may tend to build closed circles to take control of the profession and the market; so here the best you can have is to let people judge the judgers, and of course the results. Feyerabend (1978) argues for this position concerning science in general.

[7] See Smith (1759) for this analogy between moral and aesthetic judgments.

[8] Here our distinction slightly differs from the distinction proposed by Searle (1995), in that it explicitly characterizes epistemological objectivity and subjectivity respectively in terms of intersubjective and subjective information. It therefore supports a principled distinction. Searle's distinction, on the contrary, rests on the intuition that judgements like "Rembrandt

is a better artist than Rubens" are subjective because they do depend on certain attitudes, feelings, or points of view of the maker of the judgement, whereas judgements like "Rembrandt lived in Amsterdam in 1632" are objective because they not depend upon anything like that. This blurs the difference between the ontological and the epistemic case, because the subjectivity of the first judgement seems clearly to rest on the subjectivity of the property attributed to the object. The problem is clear when we look to the way Searle differentiates a statement like "this object is paperweight" from a statement like "the moon is beautiful". Searle thinks in fact that the first is epistemically objective, but provides no principled reason for the difference. In particular, he provides no principled reason to reject the view that both are subjective (since both seem to depend on certain attitude, feeling, or point of view of the maker of the judgement). A provisional reason to take judgements about paperweights to be objective and those about beauty to be subjective is a difference in the grade in which they are likely to be shared, namely that "this is a paperweight" is likely to be accepted by more people than "Rembrandt is a better artist than Rubens". But in this respect nothing prevents aesthetic judgements enjoying universal acceptance (Kant's considerations about *sensus communis* are thought to apply precisely to natural beauty). So if we follow Searle's intuitions we seems to be left without a criterion to tell such cases apart. The problem does not arise in our version of the distinction because we can accept that aesthetic judgements are objective in the epistemological sense insofar as they are intersubjectively assessable.

[9] Any intelligent extraterrestrial beings totally different from us.

[10] Kant (1790, § 22) provided this idea with a universal flavour by supposing that the faculty of judgement rests on a "sensus communis", Gadamer (1960, 334 ss.) champions the historicist view that allows nothing more than general recognition over time.

[11] The notion of 'user' is subject to criticism in design research. Focussing on just the 'users'of a product may ignore the needs of others affected by its design (Bowen, 2009). Moreover, the term 'user' reflects a tendency to objectify people as 'test subjects' rather than human beings with a context, lifestyle and desires that go beyond their physical representation (Donahue & Gheerawo, 2009). Aware of this critique, this paper uses the term 'users' as a shorthand for 'people for whom designers design'.

[12] The insight that people's "tacit knowledge" can contribute to more insightful and more powerful design decisions was another motivation to engage in participatory design in the 1960s (Sanoff, 2007), and more recently inspired designers to involve locals in designing places (Day, 2003).

[13] see Crane (2001), pp. 94-95, Stanley, Williamson (2001) for a discussion.

[14] See Lee (2008); both people and professionals can be trained to cooperate by participating in actual design processes (see Lee & Bishard, 2008)

[15] An example of how interdisciplinary methods can bridge the gap between the subjective character of first person reports and the objective character of scientific explanation of mental phenomena can be found in Dennett (1991, part 1).

[16] See Bianchin (2003) for a discussion.