

UNIVERSIDAD DE GRANADA

FACULTAD DE FILOSOFÍA

AFFORDANCES.

DISPOSITIONS, NORMATIVITY AND CONTENT.

TESIS PRESENTADA POR

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PARA OBTENER EL GRADO DE DOCTOR CON MENCIÓN INTERNACIONAL EN EL
PROGRAMA DE DOCTORADO EN FILOSOFÍA CONTEMPORÁNEA

DIRECTOR: MANUEL DE PINEDO GARCÍA



2015

Departamento de Filosofía 1

Editor: Universidad de Granada. Tesis Doctorales

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ISBN: 978-84-9125-413-3

URI:<http://hdl.handle.net/10481/41722>

A Lorena.

Is it not absurd to think that they [our ancestors] had perfect senses, that is, perfect ability to act, and had them only for contemplative purposes?

Voltaire

Accordingly, just as we say that a body is in motion, and not that motion is in a body we ought to say that we are in thought and not that thoughts are in us.

Charles Sanders Peirce

The questions “What is length?”, “What is meaning?”, “What is the number one?”, etc., produce in us a mental cramp. We feel that we can’t point to anything in reply to them and yet ought to point to something. (We are up against one of the great sources of philosophical bewilderment: a substantive makes us look for a thing that corresponds to it.)

Ludwig Wittgenstein

Agradecimientos

*Walk on, walk on,
with hope in your heart,
and you'll never walk alone.*

Gerry and the Pacemakers.

Normalmente, cuando alguien acude a leer los agradecimientos de una tesis encuentra, en primer lugar, un montón de frases que vienen a decir que escribir un documento así es un proceso extenuante, una tarea tortuosa donde la soledad es la gran protagonista.

En mi caso no ha sido así.

En los momentos más dulces y también en los más difíciles he tenido la suerte de estar acompañado, y nunca me he sentido solo. Por eso quiero dedicar unas palabras de agradecimiento a todos los que han formado parte de este período de mi vida.

Primero, quiero agradecer a Manuel de Pinedo, mi director, el hecho de que confiase en mí para llevar a cabo esta tarea. Normalmente se cuenta que cuando alguien comienza una tesis siente una gran admiración por su director, pero que conforme pasan los años y se llega al final, se descubre el lado oscuro de esa persona y, por decirlo suavemente, la admiración ya no es la misma. Estoy increíblemente contento de que en mi caso no haya sido así. Durante estos años me ha enseñado muchísimo: a leer como un filósofo, a escribir como un filósofo, a dar charlas como tal y a tener la actitud adecuada ante la disciplina, ante la tesis y ante el futuro. Ha tenido una capacidad de enseñarme y una paciencia infinitas. No me ha dejado a la deriva ni un solo momento, ha sabido exigirme al máximo de la manera más amable y me ha enseñado a disfrutar de este tiempo sin por ello relajarme ni descuidar

mis deberes. Debido a esto, mi admiración hacia él ha crecido mucho más si cabe. En estos años ha sido un modelo de jefe, de filósofo, de profesor, de investigador y de amigo. He aprendido gracias a él lecciones que nunca olvidaré. Espero haber trabajado y producido lo suficiente como para que no se haya arrepentido de apostar por mí hace cuatro años. Muchas gracias de corazón por todo esto, Manolo.

Neftalí Villanueva ha sido alguien increíblemente importante durante esta tesis. Pese a que no tenía ningún tipo de obligación conmigo, ha estado siempre a mi lado preocupándose de cómo iba avanzando en todos los aspectos, y siempre ha estado ahí para ayudarme a mejorar, a superarme y a dar siempre el máximo (incluso cuando creía que ya no podía hacerlo mejor). Y lo más increíble es que esa es su actitud natural con todos. A todos los doctorandos nos ha dado la confianza de poder acudir a él para solucionar cualquier duda y conocer su opinión sobre los pasos que íbamos dando. Es el cemento que nos une a todos. Es una inmensa suerte tener a alguien así a tu lado durante todo este proceso, y de él también he aprendido muchas cosas que me van a acompañar siempre.

Una de las mejores cosas que me han pasado estos años ha sido ser parte del *Granada Gang*. Quiero agradecer a María José Frápolli sus comentarios y recomendaciones a todo lo que hacía en el inicio de mi doctorado. Vistos desde esta perspectiva, ahora me doy cuenta de que jugaron un papel no solo muy importante, sino claramente determinante en los años posteriores. También quiero agradecer a Juan José Acero sus discusiones y aportaciones en seminarios sobre temas que estaban relacionados con esta tesis y que, sin él saberlo entonces, ejercieron una influencia también determinante. He de agradecer de la manera más sincera a ~~esa manada de dementes~~ mis compañeros de doctorado todo su apoyo y amistad durante todo este tiempo. Gracias a David Bordonaba, Edu, Liñán, Andrés, Nemesio, Mirco, Jose, Palma, Víctor y Tori, de quienes he podido aprender, además de mucha filosofía, a desentrañar el carácter nomológico de la nocturnidad. Todos os merecéis un párrafo personal de agradecimiento, pero la falta de espacio me impide extenderme tanto. Gracias a todo el *Gang* por todos los seminarios, por todas las discusiones, por todos los congresos, y también por las fiestas, las risas, las cervezas y los partidos de fútbol. Por todo lo que me habéis enseñado y por vuestra amistad. Sois el grupo de investigadores y amigos del que cualquiera querría formar parte.

En Granada todavía queda mucha gente que me ha apoyado mucho durante estos años. Quiero agradecer a Chema por haber sabido encontrar puntos comunes

entre su trabajo y el mío, porque siempre ha sido emocionante ver que las perspectivas se ajustan si hay comprensión sincera y buena disposición. Además de su amistad y sus conversaciones, Chema en un partido me dio un pase similar al grandioso taconazo de Guti y gracias a eso logré marcar un gol entre las piernas del portero. Ninguna de estas cosas se olvidan fácilmente. Javier Osorio tuvo la temeridad de depositar su confianza en mí para dirigir su trabajo fin de grado. Ha sido una experiencia fantástica. Muchísimas gracias, Javi. Hace más de diez años que Jose Luis Fernández Moreno me enseñó Filosofía en el instituto. Su énfasis en la filosofía de la mente, el naturalismo y la influencia de Wittgenstein hicieron que me decantara por estudiar Filosofía (muy a su pesar). Desde entonces hemos mantenido el contacto y me ha ayudado en muchas cosas. Sin sus clases esta tesis tampoco habría sido posible. Mil gracias, Jose Luis.

He tenido la increíble fortuna de que David Travieso y David Jacobs me invitasen a los seminarios de su grupo de investigación y de que me hayan ayudado tantísimo durante todos estos años a comprender los entresijos de la psicología ecológica. Siempre que he tenido una duda he podido acudir a ellos a solucionarla. Por toda su paciencia y por todo lo que me han enseñado merecen un puesto especial dentro de estos agradecimientos. Jorge Ibáñez tampoco se ha quedado atrás enseñándome cosas y discutiendo cualquier tema conmigo.

Con especial cariño tengo que agradecer a Javier González de Prado, María Muñoz y Álex Díaz su amistad y apoyo desde que nos conocimos haciendo el máster juntos. A los tres les debo muchísimo por innumerables conversaciones, viajes, congresos y fiestas. A mucha otra gente le debo bastante por sus conversaciones y por muchas más cosas, como Alberto, Mercedes, Agata, Vicente Raja, Miguel Segundo, Xabier Barandiaran, Isa Gamero y muchos más.

Esta tesis se ha podido realizar gracias a una beca-contrato de Formación del Personal Investigador concedida por el Ministerio de Ciencia e Innovación, ahora degradado a una secretaría de estado. Quiero agradecer sinceramente a todos los contribuyentes su esfuerzo y trabajo durante estos años tan difíciles, ya que esto ha permitido que me haya formado como investigador.

I've been awarded with two research visits abroad in 2013 and 2014. The first one was at the University of Southampton under the supervision of Jason Noble. Jason has been a great supervisor during that time. We talked a lot about

philosophy and cognitive science, and those conversations were extremely valuable. Furthermore, Jason is one of the most brilliant, kind, witty and wonderful persons I've ever met. I owe him and Sirem a lot of wonderful days, conversations and experiences. He is the perfect host both at work and at home, and I've learnt a lot of life lessons that will always be with me. Thanks for all those moments, Jason.

John McDowell treated me in an extremely kind way during my time at Pitt. He was very patient, and he read and discussed every draft that I sent him. I am very grateful for his comments and suggestions. They played a key role in my papers and in my dissertation. Tom Breeds and I discussed many issues related to the philosophy of perception during my time there, and I feel very grateful for his comments and his kindness too. Gracias a la familia Winnica-Galetto por darme el ambiente familiar que me faltaba al otro lado del charco.

He tenido además la suerte de poder discutir en algún momento distintos aspectos de mi trabajo y de mis intereses con varios filósofos de los que he aprendido mucho. Entre otros, he de destacar especialmente a Jesús Vega y a Paco Calvo, que siempre han mostrado interés por conocer qué pensaba sobre distintos temas y cómo avanzaba en mi trabajo, y a los que siempre he podido acudir para solucionar cualquier tipo de duda. En lo personal se han comportado conmigo de una manera maravillosa. Gracias por vuestra confianza.

Lola Cañamero me trató increíblemente bien cuando me invitó a dar una charla en Hertfordshire, y todavía no he podido devolverle el favor. Ahora que voy a estar más liberado de todo esto espero que retomemos el contacto. Sirvan estas líneas como agradecimiento.

I learnt a lot from Daniel D. Hutto, even when I met him just for a few days. He gave me a lot of advice that I won't forget.

I had a conversation with Anthony Chemero once, four years ago, in Almería. That conversation and especially his book were extremely influential for writing this dissertation. Someone could think that some of his ideas on affordances are the main enemy in this work. But nothing further from the truth: I only discuss and analyze his ideas here in a critical way as a mark of respect and admiration.

Víctor Verdejo y Cristian "Cabeza" Saborido no solo han mostrado interés en mi trabajo y han comentado muchas de mis ideas, sino que los muy imprudentes,

no sé por qué extraña razón, pensaron que yo podía ser alguien de confianza para organizar reuniones científicas. Por ahora la cosa no ha ido mal. Muchísimas gracias por vuestra confianza y por vuestra amistad.

Jara, Angy, Dani, Edgar y Carlos: mil gracias por estar presentes en muchos momentos fantásticos estos años, por vuestras conversaciones y por vuestra amistad. Gracias al resto del aula PDIF de Psicología de la UAM por su cariño y paciencia.

Hay muchos amigos que también, pese a la distancia y al tiempo, me han mostrado su apoyo y han disfrutado conmigo de las alegrías de estos años: David Sampedro, Meli, Chipi, Macarena, David Real, Antonio y Juan Omiste, Antonio Luis y María, Luisca, Capa, Hurta, Pedro Aguilera, David Monreal, Miguel I. García, Daniel y Noemi, Claudia y muchos más que me dejo sin nombrar por falta de espacio, pero no de cariño y agradecimiento.

Mis padres y mi hermana han sido siempre un apoyo constante, siempre se han preocupado por mí y han estado siempre a mi lado en las alegrías y en los momentos difíciles. Ahora que echo la vista atrás me doy cuenta de que han estado más presentes de lo que creía, y de que han sido más importantes en todo esto de lo que pensaba. Tengo muchísima suerte de tener una familia tan increíble. Os quiero mucho.

Mila y Juan han hecho de padres cuando no he tenido a los míos cerca, que ha sido durante mucho tiempo en estos cuatro años. Siento por ellos más amor y cariño del que se imaginan. Gracias por todo.

Por último tengo que reservar unas palabras para la persona sin la cual nada en mi vida podría llevarse a cabo decentemente, incluyendo esta tesis. Lorena hace que cada día me esfuerce por mejorar en todos los aspectos, que no sea conformista y que saque lo mejor de mí en cada momento. Ella personifica todas las virtudes que aspiro a tener. El mundo sería un lugar mejor si hubiese más gente como ella, porque cada acción suya está llena de inteligencia, de bondad y de belleza. Eres la persona que más admiro, de la que más aprendo y a quien más quiero. Me faltan palabras (y muchas veces también acciones) para agradecerte todo lo que haces por mí cada día. Por todo esto, solo espero seguir disfrutando de tu amor y de tu compañía. Gracias, Lore.

Summary

The main aim of this dissertation is to offer a systematized view on three main aspects of affordances, the objects of perception for ecological psychology. The three main aspects are dispositionalism, normativity, and the perceptual content that results from our experiencing them. The main idea that I defend is the following: affordances can be understood as dispositions from a non-factualist, Rylean perspective. This non-factualist approach takes inspiration from the work of Ryle, Wittgenstein, Sellars and McDowell. In order to defend that affordances as dispositions from a non-factualist approach, this means that the normative aspect of dispositions is understood in a non-factualist way too, and that the best candidate to explain which is the content of our perceptual experience is an approach that I call minimal conceptualism, which is based on McDowell's notion of intuition. Chapters 2 to 5 deal with dispositionalism, chapters 6 to 8 delve into normativity, and chapters 9 and 10 analyze perceptual content.

The approach that I follow here (depicted in Chapter 2) is a non-factualist approach to the mental. The anti-factualist approach claims that accounting for our mental abilities is not the same thing as describing scientific facts. Taking this as a starting point, I show that the main flaw of factualist approaches to the mental is precisely a commitment to factualism. Following Sellars, Ryle, and Wittgenstein, I claim that our mental, normative abilities should not be understood in a factualist way: first, following Ryle (1949/2009), because no single fact can exhaust the normative character of an ability; second, following Sellars (1956), because explaining abilities (which are normative) in terms of non-normative or non-epistemic facts is a variety of the is-ought fallacy. I also claim that this anti-factualist approach regarding our mental abilities is compatible with ontological naturalism. Since the mental is normative and the mental is not factual, this means that we do not need to postulate the existence of non-natural entities in our world, which counts in favour of ontological naturalism. In conclusion, our mental abilities are not factual: they do not occupy a place in our natural world in

the same sense as our bodies do. This non-factualism regarding normativity and mental content is what guides the rest of the dissertation.

After depicting this philosophical background, I present in Chapter 3 an introduction to the main ideas of ecological psychology. Here I show which are the motivations and assumptions of the discipline, and how all their scientific concepts are organized to give rise to the notion of affordance. This chapter, then, is a state of the art concerning ecological psychology.

After offering an overview of ecological psychology, I offer in Chapter 4 an overview of dispositionalism. I distinguish between factualist and non-factualist (or anti-factualist) dispositionalism. One of the main ideas is that, if we accept a variety of factualist dispositionalism called realist dispositionalism, then we need to offer a framework to characterize dispositional properties. In doing so, Tugby (2013) warn us that, at the end, the less problematic framework for characterizing dispositions is Platonism. The conclusion is that Platonism (which postulates the existence of transcendent universals) is not a reasonable approach, because it is not easy to reconcile with ontological naturalism. I offer an approach that I find preferable: the Rylean anti-factualist approach. It is preferable because it does not need to postulate the idea of transcendent universals, and solely for this reason this approach is easier to reconcile with ontological naturalism. Thus, if this anti-factualist approach that I offer has the same explanatory power and also defends that dispositions are not actually existing (factual) properties (transcendent or immanent), this means that anti-factualism is the most economic framework, and hence the most desirable one in order to characterize dispositions.

Once it is explained why the Rylean, anti-factualist approach to dispositions is the best way to characterize them, it is time to apply this framework to affordances. For this reason, Chapter 5 offers, first, a brief overview of what are affordances from a neutral, ecologically standard perspective. For this, first I analyze Chemero's (2009) criticism of Michaels (2000) by which affordances should be understood as features of the environment rather than as properties of objects. I show that his depiction of the consequences for defending the object-property view are unmotivated, and I analyze the way in which ecological psychologists explain affordances, concluding that for them there is no big difference between claiming that they are features or properties, so this is not a genuine debate at all. Second, I show which are the main theories concerning affordances and I conclude that

their depiction of dispositionalism is incomplete. Finally, I show that the Rylean anti-factualist approach is a very suitable framework for explaining affordances.

Now it is time to analyze in which sense we can claim that affordances are related to our normative practices (which I will do in Chapter 8). For this reason, Chapter 6 is devoted to analyze how we can understand normativity in an anti-factualist way. This notion of normativity is useful for making sense of our norm following and unreflective behaviour. The chapter explains that normative practices are socially-mediated and rule-bound. The possibility of error and the epistemic responsibility of agents concerning normative practices that allow them to differentiate between ‘it is correct’ and ‘it seems correct to me’ are key aspects for considering normativity in a non-factualist way. Following Wittgenstein’s (1953) argument against the possibility of a private rule-following behaviour, a non-social agent would not be able to differentiate between what it is right and what seems right if there is no community that could sanction or reinforce its behaviour, because the same action could be either right or wrong depending on how the non-social agent interprets the norm, leading us to a paradoxical situation.

Chapter 7 deals with the notion of normativity that is defended in the enactive approach to cognition. After analyzing the main features of enactivism, I apply the aforementioned Wittgensteinian ideas to show that the enactive approach cannot support a consistent notion of normativity. However, their ideas on situated cognition, embodiment and agency are celebrated.

Chapter 8 applies the same arguments to Chemero’s (2009) ideas on the normative character of affordances. I show that his defence of the normative aspects of affordances is unmotivated. He claimed that affordances should be understood as normative relations because one can fail when taking advantage of an affordance, but I offer three different reasons to show why this is not a correct characterization of affordances: First, because he confuses perceptual error with action error: one can fail when taking advantage of affordances, but this is not the same as perceiving affordances erroneously; second, because, as shown in Chapter 3, there is no possibility of perceptual error in ecological psychology; and third, because Chemero’s approach to normativity cannot face the Wittgensteinian argument against a private model of rule-following behaviour. Finally, I claim that there is a way in which the taking advantage of affordances can be related to norm-following behaviour, but always taking those practices as a background reference.

After dealing with normativity, I analyze in the last two chapters how is the content of our perceptual states regarding our experience of affordances. Chapter 9 shows which is the best framework for characterizing our perceptual content when experience affordances taking the Dreyfus-McDowell debate as a starting point. First, I depict Dreyfus' phenomenological approach to perceptual content and McDowell's perceptual conceptualism, show that the latter is preferable because it explains how to connect perceptual content with the rest of our rational abilities without falling under any mythical explanation. Dreyfus claims that the perception of affordances imply a kind of content that it is not conceptual, but emotive or phenomenological, and that cannot be related to our rationality because it does not have the same nature. Dreyfus' approach defends that our perceptual content is not conceptual, so we cannot relate our experiences to our rational abilities; this leads us to the myth of the mind as detached. But conceptualism is able to avoid this myth by claiming that every experience is suitable to be taken at face value. This means that every experience has the potency to be conceptualized if our rationality permeates perception; hence we can relate experience to our rational abilities and justify our unreflective behaviour. Thus, when Dreyfus claims that affordances are unable to be conceptualized, McDowell shows that this is possible due to the conceptual shape of our experiences. Once it is shown that conceptualism is preferable over phenomenology, it is time to analyze which kind of conceptualism can account for our experience of affordances.

For this reason, Chapter 10 shows why a version of conceptualism, called minimal conceptualism, is the most suitable approach to understand our experience of affordances. The main problem with standard or propositional conceptualism is that it is representational, because it implies that the content of the perceptual experience is a proposition that represents a state of affairs. A proposition represents a worldly state of affairs because it shares the same structure. Hence it is representational. This is tightly connected to the idea of truth as correspondence: this idea states that truth is a relation of correspondence between a proposition and a fact. This means that this relation of correspondence is based on the thought that, if the same structure of the proposition is shared with the structure of the fact of the world, then the proposition represents the fact and the proposition is true inasmuch as it corresponds with a fact.

On the contrary, minimal conceptualism, which is based on McDowell's (2009)

notion of intuition, shows that there is no need to possess a whole proposition as the content of our perceptual states in order to merely have something in view. If an intuition is conceptual but not propositionally structured, the intuition is not an element of a proposition that represents a state of affairs; hence it is not representational. Taking this as a starting point, I claim that an intuition does not have any representational function or truth-value inasmuch as it is not propositionally structured. Thus, minimal conceptualism can combine the main advantages of conceptualism (the rejection of the myth of the mind as detached and the rejection of Givenness) while it avoids the main flaws of propositional or strong conceptualism (representationalism and generality).

Finally, I analyze in the Appendix the Travis-McDowell debate on Givenness, in order to show that Travis' arguments against conceptualism could be overcome if a minimal rather than a strong conceptualism is defended. This complements and reinforces the minimal conceptualist approach that has been defended in Chapter 10.

Resumen

El objetivo principal de esta tesis es el de ofrecer una visión sistematizada de tres aspectos principales de las *affordances*, los objetos de la percepción de la psicología ecológica. Los tres aspectos principales son el disposicionalismo, la normatividad y el contenido perceptivo que resulta de nuestra experiencia de estos objetos. La idea principal que defiendo es la siguiente: las *affordances* pueden entenderse como disposiciones desde una perspectiva ryleana no factualista. Este enfoque no factualista está inspirado en varias ideas provenientes de la obra de Ryle, Wittgenstein, Sellars y McDowell. Para defender que las *affordances* son disposiciones desde un enfoque no factualista, el aspecto normativo de las disposiciones ha de entenderse también de una manera no factualista. Y si lo mental y lo normativo son entendidos de manera no factualista, esto quiere decir que el mejor candidato para explicar cuál es el contenido de nuestra experiencia perceptiva de estos objetos ha de tener un enfoque no factualista también. La propuesta que presento la he llamado ‘conceptualismo mínimo’ y se basa en la noción de la intuición de McDowell.

Los capítulos 2 a 5 analizan el rasgo disposicional, los capítulos 6 al 8 el carácter normativo y los capítulos 9 y 10 analizan el contenido perceptivo de nuestra experiencia de estos objetos. El enfoque que sigo aquí y que se explica en el Capítulo 2 es, como ya se ha mencionado, un enfoque no factualista de lo mental y lo normativo. Este enfoque afirma que explicar el carácter normativo de nuestras capacidades mentales no es lo mismo que describir hechos científicos, al contrario de lo que defiende el factualismo. Siguiendo a Sellars, Ryle y Wittgenstein, explico que nuestras capacidades mentales normativas no deben entenderse de esta manera factualista: primero, partiendo de Ryle (1949/2009), afirmo que ninguna explicación de hechos particulares puede agotar el carácter normativo de una habilidad; segundo, siguiendo a Sellars (1956), afirmo que si queremos explicar una habilidad y su carácter normativo apelando a hechos no normativos o no epistémicos estamos cometiendo una variedad de la falacia naturalista, ya que no podemos derivar enunciados normativos de enunciados de hecho. También muestro que este enfoque

no factualista aplicado a nuestras habilidades mentales es compatible con el naturalismo ontológico. Si lo mental es normativo, y si lo mental no tiene un carácter factual, esto significa que no es necesario postular la existencia de más entidades en nuestro mundo. Esto claramente cuenta a favor del naturalismo ontológico. En conclusión, ni los contenidos de nuestra experiencia ni nuestras habilidades mentales serían factuales y, por lo tanto, no ocuparían un lugar en nuestro mundo natural en el mismo sentido que nuestros cuerpos lo hacen.

Después de presentar este trasfondo filosófico, en el Capítulo 3 introduzco las ideas principales de la psicología ecológica. Aquí muestro cuáles son las principales bases de la disciplina y cómo se organizan todos sus conceptos científicos para dar lugar a la noción de *affordance*.

Después de ofrecer una visión general de la psicología ecológica, muestro en el Capítulo 4 un estado de la cuestión sobre el disposicionalismo. Hago una distinción entre disposicionalismo factualista y no factualista. Una de las ideas principales es que, si aceptamos una variedad de disposicionalismo factualista (realismo disposicional) como el más adecuado dentro de factualismo para explicar qué son las disposiciones, entonces tenemos que encontrar un marco metafísico para caracterizar este tipo de propiedades. Al hacerlo, Tugby (2013) nos advierte de que, según los estándares del realismo disposicional, el marco menos problemático para caracterizar las disposiciones como propiedades es el platonismo. Se concluye posteriormente que el platonismo (el cual postula la existencia de universales trascendentes) no es un enfoque razonable, ya que no es fácil de conciliar la existencia de propiedades universales trascendentes con el naturalismo ontológico.

Propongo entonces que el disposicionalismo ryleano no factualista es un mejor candidato. Este último enfoque es preferible porque no postula la existencia de universales trascendentes, y esta razón es suficiente para que el disposicionalismo ryleano sea más fácil de conciliar con el naturalismo ontológico. Si las disposiciones no son en realidad propiedades existentes similares a entidades (esto es, si no defendemos una postura factualista con respecto a las disposiciones), entonces el no factualismo es el marco más económico para caracterizar disposiciones.

Ahora es el momento de aplicar este disposicionalismo no factualista y ryleano para caracterizar a las *affordances*. Por esta razón, el Capítulo 5 ofrece, en primer lugar, una breve descripción de lo que son las *affordances* desde una perspectiva

ecológica estándar, en línea con el Capítulo 3. Tras esto, primero analizo la crítica de Chemero (2009) a Michaels (2000) por la cual las *affordances* deben entenderse como rasgos del entorno en lugar de como propiedades de los objetos de ese entorno. Muestro entonces que su modo de criticar la idea de que las *affordances* son propiedades de objetos es infundada. Tras esto, analizo la forma en que los psicólogos ecológicos explican las *affordances*, concluyendo que para ellos no hay ningún tipo de conflicto ontológico entre afirmar que son rasgos del entorno o propiedades de objetos, por lo que concluyo que este debate iniciado por Chemero (2009) no es un debate ontológico genuino. En segundo lugar, se muestra cuáles son las principales teorías ontológicas de las *affordances* y llego a la conclusión de que las teorías clásicas analizan el disposicionalismo de una manera incompleta. Por último, se muestra que el enfoque ryleano no factualista es un marco muy adecuado para explicar las *affordances* como disposiciones.

A continuación, analizaré en qué sentido podemos afirmar que las *affordances* están relacionadas con nuestras prácticas normativas. A esto se llegará finalmente en el Capítulo 8. Antes, el capítulo 6 se dedica a analizar cómo podemos entender la normatividad desde el ya mencionado enfoque anti-factualista. Esta noción de normatividad es útil para dar sentido a nuestro comportamiento basado en el seguimiento de normas. El capítulo explica que las prácticas normativas han de entenderse como socialmente mediadas. La posibilidad de error y la responsabilidad epistémica de los agentes relativa a cómo llevan a cabo las prácticas normativas es lo que les permite diferenciar entre “es correcto” y “me parece correcto”. Estos son aspectos clave para entender la normatividad de una manera no factualista. La defensa de esta manera de entender la normatividad descansa principalmente sobre las ideas de Wittgenstein (1953) contra la posibilidad de un seguimiento privado de normas. Un agente no social no sería capaz de diferenciar entre lo que es correcto y lo que le parece correcto si no hay comunidad que pueda sancionar o reforzar su comportamiento. Esto es así porque la misma acción podría ser correcta o incorrecta para el agente dependiendo únicamente de cómo interprete la norma, y en esa situación los términos “correcto” e “incorrecto” no tendrían significado, lo que nos llevaría a una situación paradójica.

El Capítulo 7 analiza la noción de normatividad defendida en el enactivismo. Tras analizar las principales características de este enfoque se aplican las ideas de Wittgenstein para mostrar que, según lo dicho en el Capítulo 6, esta teoría no

puede hacer frente a los argumentos que contra la imposibilidad del seguimiento privado de normas. Sin embargo, se consideran positivamente sus ideas sobre la cognición situada y corporeizada y su idea de cómo entender la agencia.

El Capítulo 8 aplica las mismas ideas del Capítulo 6 a cómo Chemero (2009) entiende el carácter normativo de las *affordances*. Chemero señala que las *affordances* deben entenderse como relaciones normativas porque uno puede fallar aprovechando un *affordance*, pero en lugar de eso en el capítulo se ofrecen tres razones diferentes para mostrar por qué esto no es una caracterización correcta de las *affordances*: En primer lugar, porque se confunde el error de percepción con el error de acción (uno puede fallar al aprovechar las *affordances*, pero esto no es lo mismo que percibir *affordances* erróneamente); en segundo lugar, porque de acuerdo con el Capítulo 3, no hay posibilidad de error de percepción en psicología ecológica; y tercero, porque el enfoque de Chemero tampoco puede hacer frente al argumento de Wittgenstein contra un modelo privado de seguimiento de reglas. Finalmente, afirmo que hay una manera en la que el aprovechamiento de *affordances* puede estar relacionado con nuestras prácticas normativas si estas últimas se toman como referencia y se incorpora el aprovechamiento dentro de esas prácticas.

Después de lidiar con la normatividad en estos tres capítulos, los dos últimos analizan cómo dar cuenta del contenido de nuestros estados perceptivos cuando percibimos *affordances*. El Capítulo 9 toma como punto de partida el debate Dreyfus-McDowell para definir cuál es el mejor candidato para explicar el tipo de contenido mental que se nos atribuye al percibir *affordances*. En primer lugar, se presenta el enfoque fenomenológico de Dreyfus y el conceptualismo de McDowell, y se señala que este último es preferible porque explica cómo conectar el contenido perceptivo con el resto de nuestras capacidades racionales de manera consistente, sin caer en ninguna explicación mítica. Dreyfus afirma que la percepción de *affordances* implica un tipo de contenido que no es conceptual, sino emotivo o fenomenológico, y que por tanto no puede integrarse en nuestra racionalidad al no tener la misma naturaleza que el resto de nuestras habilidades racionales. Esto significa que el enfoque de Dreyfus defiende que nuestro contenido perceptivo no es conceptual, por lo que no se pueden relacionar nuestras experiencias con nuestras capacidades racionales. Esto nos lleva al mito de la mente como separada. Pero el conceptualismo es capaz de evitar este mito al afirmar que, si nuestra percepción está impregnada de racionalidad, cada experiencia tiene la potencialidad

de ser conceptualizada y, por tanto, podemos relacionar la experiencia con nuestras capacidades racionales, siendo capaces de poder justificar nuestro comportamiento irreflexivo. Así, cuando Dreyfus afirma que las *affordances* no pueden ser conceptualizadas, McDowell demuestra que esto es posible debido a que nuestra experiencia está permeada de racionalidad. Una vez que se demuestra que el conceptualismo es preferible a la fenomenología, es el momento de analizar qué tipo de conceptualismo puede dar cuenta de nuestra manera de percibir *affordances*.

Por esta razón, el capítulo 10 muestra por qué una versión del conceptualismo, que llamaré 'conceptualismo mínimo', es el enfoque más adecuado para comprender nuestro modo de percibir *affordances*. El principal problema con el conceptualismo estándar o proposicional es que es representacionista, ya que implica que el contenido de la experiencia perceptiva es una proposición que representa un estado de cosas. Tradicionalmente, defender el representacionismo implica adherirse a una noción de verdad como correspondencia, aunque existen excepciones (McDowell 1994/1996). Según estos autores, una proposición representa un estado de cosas del mundo porque comparte la misma estructura de ese estado de cosas. Así pues, la teoría de la verdad como correspondencia afirma que la verdad es una relación de correspondencia entre una proposición y un hecho. Esto significa que esta relación de correspondencia se basa en la idea de que, si la proposición y el hecho de la mundo comparten la misma estructura, entonces la proposición representa el hecho y su valor de verdad es verdadero ya que se corresponde con él.

Por el contrario, el conceptualismo mínimo, que se basa en la noción de 'intuición' de McDowell (2009), muestra que no hay necesidad de que el contenido que se nos atribuye al percibir *affordances* sea una proposición. La peculiaridad de la intuición es que tiene forma conceptual pero no está estructurada proposicionalmente. Al ser un concepto, puede formar parte de una proposición, pero hay casos en los que basta con atribuir una intuición sin necesidad de atribuir una proposición completa. Estos casos son los que McDowell (2009) ha denominado como "tener algo a la vista". Por ello, al tener algo a la vista tenemos un contenido conceptual no estructurado proposicionalmente (una intuición), aunque ese contenido es susceptible de formar parte de otros estados mentales más complejos con contenido proposicional. Por lo tanto, si en un estado perceptivo de tener algo a la vista tenemos solo una intuición, este contenido no tendría carácter representacional ya que no tiene estructura proposicional. En conclusión, se puede afirmar que una intu-

ición no tiene ninguna función representacional o valor de verdad cuando no forma parte de una estructura proposicional. Así, el conceptualismo mínimo puede combinar las ventajas principales del conceptualismo (el rechazo del mito de la mente como separada y el rechazo de lo Dado), mientras que evita los principales defectos del conceptualismo proposicional o estándar (representacionalismo y generalidad).

Por último, el Apéndice analiza el debate Travis-McDowell sobre el Mito de lo Dado con el fin de mostrar que los argumentos de Travis contra el conceptualismo podrían superarse si se defiende un conceptualismo mínimo frente a un conceptualismo estándar. Esto complementa y refuerza el enfoque conceptualista mínimo que se ha defendido en el Capítulo 10.

Publications

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Chapter 1

Introduction

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1.1 Why a philosophical research of affordances?

“The main problem with the ecological approach as the background theory for radical embodied cognitive science and dynamical modeling is that the key concepts of Gibson’s approach are, to be frank, obscure. There is much disagreement, even among ecologically oriented psychologists, over just what affordances are supposed to be, and how they relate to animals, information, and events.”

Chemero (2009: xii)

Affordances are the main objects of perception for ecological psychology (Gibson 1979, Richardson et al. 2008). As an object of perception, they are a peculiar one: instead of being objects like stones, trees or artefacts, affordances can be considered as the opportunities for action that we can find in our environment. For example, we claim that a cup is graspable or that it affords graspability, that an obstacle is climbable or that it affords climbability, etc. These are all features that we can perceive because they are tightly related to our abilities and actions. J. J. Gibson

coined the word ‘affordance’, which comes from the verb ‘to afford’. The term emphasizes the idea that these objects of perception are meaningful to us in the sense that they entitle certain actions, that we are able to perceive them because we can do or perform certain activity in our environment. As Gibson (1979/2015: 119) claims:

The affordances of the environment are what it offers the animal, what it provides or furnishes, either for good or ill. The verb to afford is found in the dictionary, but the noun affordance is not. I have made it up. I mean by it something that refers to both the environment and the animal in a way that no existing term does. It implies the complementarity of the animal and the environment.

These objects of perception are the key concept of ecological psychology, a discipline that claims that action and perception are two sides of a same process. And the whole discipline is dedicated to explain how living creatures perceive affordances. Given its importance, this dissertation is dedicated to analyze, in a philosophical way, some main features of affordances.

Due to the development of a new anti-cognitivist approach in cognitive science¹, ecological psychology has been re-discovered and expanded beyond psychology in order to be included within this new approach to cognition. In this sense, ecological psychology can be taken to be one of the central psychological traditions that have historically supported a view of cognition based on an embodied, situated and anti-representational framework (Still and Costall 1991). Enactivism and perceptual relationalism can also be placed within such a framework (Stewart, Gapenne and Di Paolo 2010; Noë 2004; O’Reagan 2011, Campbell 2002). This is the reason why affordances, the properties studied by ecological psychology, play a privileged role in this new approach to cognition.

From a historical point of view within the psychological sciences, ecological psychology was born between the 50’s and the 70’s of the XX century and aimed to become a theory that would work as a foundation for a new cognitive psychology,

¹For further information on the philosophical foundations of this approach, in contrast to the traditional, cognitivist and intellectualist bias of cognitive science, see Pinedo and Heras-Escribano (2014), Calvo and Gomila (2008) and section 3.1

different from the most influential approaches of the time: behaviourism and cognitivism (Reed 1991, Heft 2001, see 3.1). In fact, ecological psychology claimed that cognitivism and behaviourism were not opposed approaches; on the contrary, they complemented each other (Reed 1991, see 3.1). While cognitivism emphasized internal symbolic processing as the main feature of cognition, behaviourism emphasized stimulus-response external behaviour as the key aspect of the cognitive: this only shows that each tradition located its emphasis on different parts of the whole process, where the whole picture was taken to include both the stimulus-response framework for perceiving and acting and also the internal symbolic processing explanation (Reed 1991). Thus, behaviourism and cognitivism are not different theories, but two complementary approaches that account for two different processes that together share a whole picture of the mental, sometimes labelled as ‘the computer metaphor’. Ecological psychology, on the contrary, rejects the computer metaphor and, hence, rejects both behaviourism and cognitivism for different reasons. First, it rejects cognitivism because of explanatorily parsimony (Gibson 1979: 134; Muñoz and Díaz 2013: 64): in the ecological picture, there is no need to postulate hidden or internal processing in order to find a necessary and sufficient condition that explains how we behave; also, the idea of stimulus as it is depicted in behaviourism does not take into account the exploratory and active character of agents in their natural habitat². The theoretical and philosophical foundations, with a clear empirical and experiential basis, come from the most diverse sources, such as American pragmatism, Gestalt psychology and post-Husserlian phenomenology (Reed 1991, Heft 2001). This helped ecological psychologists to face the main criticisms that came from the cognitivist approach to cognition while the influence of this latter theory increased in the psychological community during the 60’s and until the 80’s (Fodor and Phylyshyn 1980, Turvey et al. 1981). In recent times (this is, since the 70’s), the introduction of dynamical systems theory meant a new development aimed to describe new features of cognition that were traditionally unexplained in ecological psychology, such as learning (Jacobs and Michaels 2007) or language (Hodges 2014), and it allowed for an application of the insights of ecological psychology in different disciplines, such as sports psychology (Ibáñez, Travieso, and Jacobs 2011) or robotics (Ibáñez-Gijón, Díaz, Lobo, and Jacobs 2013). This development was possible mainly because “[s]ince the 1970s, Turvey, Shaw, and Mace have worked on the formulation of a philo-

²For a more developed analysis of these criticisms of cognitivism and behaviourism and a more detailed picture of the foundations of ecological psychology, see Chapter 3.

sophically sound and empirically tractable version of James Gibson's ecological psychology. It is surely no exaggeration to say that without their theoretical work ecological psychology would have died on the vine because of high-profile attacks from establishment cognitive scientists (*e.g.*, Fodor and Pylyshyn 1981). But thanks to Turvey, Shaw, and Mace's work as theorists and, perhaps more important, as teachers, ecological psychology is currently flourishing. A generation of students, having been trained by Turvey, Shaw, and Mace at Trinity College and/or the University of Connecticut, are now distinguished experimental psychologists who train their own students in Turvey-Shaw-Mace ecological psychology." (Chemero 2009: 105). Also, the introduction of new mathematical tools and models helped ecological psychology to reformulate and face in the present times some of the old cognitivist problems in classic cognitive science within a well-built experimental and theoretical apparatus (Chemero 2014, Gomila, Travieso and Lobo 2014).

The influence of affordances beyond ecological psychology shows that they are considered now as a crucial aspect for explaining behaviour, not only in cognitive psychology but also in neuroscience (Churchland, Ramachandran and Sejnowski 1994), theoretical biology (Withagen and Chemero 2009), robotics (Chemero and Turvey 2007), linguistics (Hodges 2014), etc. Given the importance of affordances within the discipline, it is natural that contemporary psychologists and philosophers try to demarcate the similarities and differences between affordances and other related notions within this field, such as that of sensorimotor contingency (Mossio and Taraborelli 2008a, 2008b). Still, some other authors just took for granted that there are not substantial differences between affordances, phenomenologically inspired relational properties and sensory motor contingencies, and they use the term indistinctively (Gallagher 2012, Hutto and Myin 2012, Noë 2004)³. As a product of this profusion throughout several disciplines, there are an increasing number of publications on affordances and ecological psychology in the philosophical field. Several philosophers of the cognitive sciences include affordances as objects of perception in the same sense as they include some other phenomenological objects of perception like Merleau-Pontyan lines of force, for example (Gallagher and Za-

³I will argue, contrary to the already mentioned authors, that there are substantial differences between affordances and other properties, like sensorimotor contingencies or some other relational properties. Affordances are aspects of the environment that possess an informational nature only describable within the ecological scale, while other elements, although similar to affordances in certain respects, they are not describable in ecological terms in the same ways as affordances are. A further depiction of affordances and the ecological scale is offered in Chapter 5.

havi 2013; Dreyfus 2005, 2007a, 2007b). Affordances play a key role in the recent discussion between Dreyfus (2007a, 2007b, 2013) and McDowell (2007a, 2007b, 2013) on the rationality of skilful action, and they are used by Dreyfus as an argument against McDowell's explanation of embodied coping⁴. Also, there has been a purely metaphysical debate among ecological psychologists on which is the most suitable candidate in the metaphysical market for explaining the ontological status of affordances (relations, dispositions, etc.). Reed (1996), Turvey (1992) and, more recently, Chemero (2009) have proposed different ways of understanding the ontology of affordances⁵.

As we can see, affordances are a well-accepted object of research by the scientific and philosophical community, and its use in the scientific realm is bounded by our best experimental insights. Inasmuch as affordances are also accepted as objects of philosophical interest and attention, a conceptual analysis of their main features (dispositionality, normativity, and our experience of them) would be, I believe, beneficial for the philosophical (and hopefully, also for the scientific) community.

1.2 Main aim

The main aim of this dissertation is to offer an explanation of affordances as dispositions in a non-factualist, Rylean way. This analysis includes two more aspects: First, to analyze in which sense we can claim that affordances are related to normativity; second, to analyze which is the perceptual content of our experience of affordances. These three aspects (dispositionalism, normativity and content) are presented in a systematic way in order to offer a unified approach to some of the main aspects of affordances.

The approach that I follow for explaining affordances and their related features is an anti-factualist one. Anti-factualism reacts against factualism and descriptivism. *Factualism*, in the philosophy of mind and epistemology, is the idea that

⁴Chapter 9 is fully devoted to this debate, where a critical view of Dreyfus' account is presented, along with an argument against his use of the notion of affordance. A briefer explanation of the debate in English can be found in 6.2.3.

⁵Chapter 5 focuses on this debate, where I support a dispositional account of affordances, although not identical to Turvey's approach, mainly because I consider Turvey's approach to be tropist rather than dispositional.

our beliefs are, or include, mental states that are factual or possess factual properties. Among all possible understandings of the term ‘*fact*’, here I follow the idea that facts are a type of *entity* that is part of the inventory of our world (Mulligan and Correia 2013); this is, I understand that if they are entity-like, then they occupy a *locus* in our world. A factualist approach is often linked to a descriptivist approach, which is committed to the idea that to explain what is a belief is to describe it as a mental state that holds at least one factual property. I defend that we do not need to support factualism or descriptivism in order to understand neither affordances as dispositions nor affordances as related to normativity. This is because I believe that we do not need to understand dispositions or the normative character of our abilities in a factual way either.

This anti-factualist approach is preferable over a factualist approach for many reasons:

(1) *Concerning dispositions*: An anti-factualist approach to dispositions is preferable over a factualist one mainly because it is more parsimonious and easier to reconcile with ontological naturalism. As it is presented in Chapter 4, factualist dispositionalism, at the end, forces us to commit to a certain variety of Platonism; this is, it forces us to accept transcendent, non-natural universals. This goes against a basic commitment with ontological naturalism. Thus, from Chapter 2 to Chapter 5, I present arguments against those authors that understand dispositionalism from a factualist and descriptivist perspective (mainly Tugby 2013), I explain Ryle’s (1949/2009) anti-factualist approach to dispositions and then I apply this anti-factualist dispositionalism to affordances.

(2) *Concerning normativity*: As I said, this dissertation offers an anti-factualist approach to dispositions, following Ryle (1949/2009), but also an anti-factualist approach to normativity, following Ryle (1949/2009), Wittgenstein (1953) and Sellars (1956). I show in Chapter 6 that normativity should not be understood in a factualist way: this is, normativity is not a factual property, but a socially mediated discursive way for explaining our behaviour in terms of attribution of commitments and what follows from those commitments. The main argument against a factualist approach to normativity is that this factualism goes against the standard way in which normativity is conceived, because according to factualist views on normativity (Chemero 2009, Barandiaran and Egbert 2013, Di Paolo 2005, Dreyfus 2007a, 2007b, etc.) even non-social agents would be able to establish and follow their own

norms privately. If this claim is accepted we would face paradoxical consequences: those non-social agents would not be able to distinguish between what is correct and what seems correct to them, because they could not differentiate between following the norm in the right way and their instinctive response or their personal interpretation of the norm. This is, between following the norm and merely thinking or believing that one is doing so. The paradoxical consequences would be that the concepts of ‘right’ and ‘wrong’, ‘correct’ and ‘incorrect’ would be meaningless, because every action would be right and wrong at the same time (thus, the same action could be either right or wrong depending on how the agent interprets the norm. This Wittgensteinian argument and Rylean and Sellarsian ideas (see Chapter 6) are useful for criticising the enactive understanding of normativity (see Chapter 7) and, more important, it sheds light for explaining in which sense we understand that our normative behaviour is related to the taking advantage of affordances (see Chapter 8).

(3) *Concerning perceptual content:* This anti-factualist approach is complemented with a minimal conceptualist approach regarding perceptual content. I defend, first, in Chapter 9, that conceptualism is preferable over other accounts of mental content (especially phenomenology) because it offer a consistent explanation of how we can connect our perceptual experience with our rational abilities. Second, I defend in Chapter 10 and Appendix A that the notion of intuitional content (McDowell 2009) is the best candidate for explaining perceptual content, because it maintains all the advantages of a conceptualist approach (it avoids Givenness and the myth of the mind as detached) and lacks all the typical flaws of conceptualism (mainly, representationalism). I understand that this way of accounting for perceptual content goes in line with the way in which normativity and rationality are depicted in Chapters 6 and 9.

In conclusion, I offer an anti-factualist and anti-descriptivist approach for explaining affordances in terms of dispositions, how they are related to our normative practices and the perceptual content of our experience of them. In the next section I explain chapter by chapter which is the plan of the dissertation in order to achieve this task.

Since I started this research on the ontological aspects of affordances and our experience of them, two independent intuitions guided my work: The first one was related with the history and advances of cognitive science and the second with

debates in the philosophy of mind about perceptual content.

First, the idea that affordances as such were a serious challenge to the cognitivist approach to cognitive science, because the ecological explanation of perception focused on an agential, anti-representational, situated and embodied perspective that rejected the idea that sub-personal elements such as representations were the key concept to be explained in order to offer a complete account of cognition. Second, the McDowellian idea that perceptual experience has to be conceptual if we want to restore the role of experience in our mental life without falling into the Myth of the Given. Claiming that experiential content is conceptual would be the only way to avoid both the Myth of the Given (the idea that a non-conceptually articulated element could have a normative impact on our rationality) (Sellars 1956) and coherentism (the idea that our experience loses all its justificatory power and is relegated to a mere causal condition for knowledge) (Davidson 1983). Thus, conceptualism regarding perceptual content seems to be the only solution in order to avoid the inconsistency of Givenness, while rescuing the justificatory element of experience at the same time.

Conceptualism and ecological psychology could easily be seen as incompatible (see Chapter 10). It may sound strange that a psychological theory developed in order to downplay the role of ‘mental gymnastics’ (Chemero 2009) could be complemented precisely with a theory of perceptual content that is based on the idea that all our basic perceptual processes would imply the possession and articulation of conceptual capacities. In this sense, conceptualism and ecological psychology could not support or complement each other in offering a consistent philosophical picture of our experiential capacities.

I want to show that such a suspicion is unfounded. By tracing back in the literature certain elements shared by McDowell, Wittgenstein, Ryle and Sellars, I argue that a conceptualist, normativist approach to mental content can be suitable to be combined with an anti-representational, agential and situated approach to perception and action such as the one propounded by ecological psychology. I believe that certain common aspects of the work of these authors are the best candidates to offer a strong philosophical foundation for understanding ecological psychology, and especially the perception of affordances, which is the key concept in this dissertation. Conceptualism, as it is presented by McDowell (McDowell 1994, 2007a, 2007b) shares a sufficient number of elements with ecological psychology, such as

the agential perspective and the embodied and situated character of perception (see 6.2.3). Also, even if McDowell does not explicitly analyse affordances in detail, there are some references to them in his work (McDowell 2007a, 2007b) that, combined with its Kantian-inspired notion of ‘intuition’ (McDowell 2009), shows that conceptualism could well accommodate the empirical support of ecological psychology and, conversely, that conceptualism could be a highly suitable candidate for providing a philosophical foundation for our experience of affordances.

1.3 Plan of the dissertation

The plan for the dissertation goes as follows:

Chapter 2: This chapter shows which is the philosophical background and perspective that I follow in this analysis of affordances. I defend a non-factualist approach to the mental (inspired by some aspects of the work of Ryle, Wittgenstein, Sellars and McDowell, see 2.3.1) that serves as a basis to develop an understanding of affordances in dispositional terms, to analyze in which sense they are related to our normative practices and how we can characterize our perceptual content resulting from our experience of them. The anti-factualist approach claims that accounting for our mental abilities is not the same thing as describing scientific facts. Following this, I offer a brief explanation of the main factualist accounts of the mental (reductionism and emergentism, see 2.4.1) and I show that their main flaw is a shared commitment to factualism (see 2.4.2). In contrast, I offer two arguments by which our mental, normative abilities should not be understood in a factualist way: first, following Ryle (1949/2009) because no single fact can exhaust the normative character of an ability; second, following Sellars (1956), because explaining abilities (which are normative) in terms of non-normative or non-epistemic facts is a variety of the is-ought fallacy (see 2.4.2.1 and 2.4.2.2). I also claim that this anti-factualist approach regarding our mental abilities is compatible with ontological naturalism (see 2.4.3.1). Naturalists could argue that since an anti-factualist approach defends that mental abilities are not facts, this does not satisfy ontological naturalism (the idea that every entity or process in our world is susceptible to be scientifically analyzed). But nothing further from the truth: since the mental is not factual, we do not need to postulate the existence of non-natural

entities in our world, because normativity does not occupy a place in our world alongside other entities. The mental /normative as non-factual is compatible with ontological naturalism because we do not need to postulate the existence of new entities or properties in our world to account for it. Neither the contents of our experience nor our mental abilities are factual: they do not occupy a place in our natural world in the same sense as our physical bodies do. This idea guides the rest of the dissertation.

Chapter 3: This chapter is an introduction to the main ideas of ecological psychology. It shows which are their main motivations and assumptions, and how all their scientific concepts are organized to give rise to the notion of affordance. It is an embodied, situated, biosemiotic and anti-representational approach that aims to explain how we perceive our environment as affording actions to us (see 3.1). Our perception is continuous with action, and this affects our environment in the way we perceive it and act upon it (see 3.2.2, 3.2.3 and 3.2.8). There is, then, a looping relation between our actions and the elements of our environment: the actions of agents and the physical energies of the environment, when conjoined, give rise to a new informational level called the ecological scale (see 3.2.4, 3.2.5, 3.2.6, and 3.2.9). This scale explains how action and perception are continuous, and how our exploratory character allows us to detect certain possibilities for action in our environment, which are the affordances. This perception is direct, and is based on detecting ecological information, the information that appears in the environment when we explore it. This chapter, then, is a state of the art concerning ecological psychology. It is very important for this dissertation not only in terms of contextualizing the discipline in the contemporary map of the cognitive sciences, but also because some of its main ideas (like Shaw's principle of symmetry, see 3.2.10) are used against Chemero's (2009) approach to affordances as normative relations. If perception is direct, there cannot be perceptual error; hence affordances cannot be normative relations, because error is a necessary condition for normativity. See Chapter 6 for a further development of this idea.

Chapter 4: This chapter offers a state of the art concerning dispositionalism. I distinguish between factualist and non-factualist (or anti-factualist) dispositionalism (see 4.2). According to factualist dispositionalism, dispositions are actually existing (factual) properties possessed by agents and objects. This dispositionalism is divided into two: realist dispositionalism and anti-realist (or empiricist) disposi-

tionalism. The main difference between both approaches is that the anti-realist is committed to the existence of these properties once they manifest, and they usually explain this commitment by claiming that the only thing that can assure that a factual property exists is the fulfillment of an exhaustive conditional analysis that shows how or when the property manifests. According to the realist approach, anti-realism makes ontology dependent on evidence, and the main problem for this is that the empiricist does not take into account cases in which there does not need to be a manifestation in order to claim that the object or the agent possesses a dispositional property. Thus, following the realist, we need to offer a framework to characterize dispositional properties (see 4.3). Tugby (2013) shows that, at the end, the less problematic framework is Platonism (see 4.3.3). The conclusion is that Platonism is not a reasonable approach, because it is not easy to reconcile Platonism (which needs to postulate the existence of transcendent universals) with ontological naturalism. For this reason, Rylean anti-factualism is preferable: it does not postulate the idea of transcendent universals, and solely for this reason this approach is easier to reconcile with ontological naturalism (see 4.4). If dispositions are not actually existing (factual) properties, transcendent or immanent, then anti-factualism is the most parsimonious framework, and hence the most desirable one in order to characterize dispositions.

Chapter 5: Once it is explained why the Rylean, anti-factualist approach to dispositions is the best way to characterize them, it is time to apply this framework to affordances. The chapter offers, first, a brief overview of what are affordances from a neutral, ecologically standard perspective. After that, I analyze Chemero's (2009) criticism of Michaels (2000) by which affordances should be understood as features of the environment rather than as properties of objects (see 5.3). I show that his depiction of the consequences for defending the object-property view is unmotivated, and I analyze the way in which ecological psychologists explain affordances, concluding that for them there is no big difference between claiming that they are features or properties, so this is not a genuine debate at all (see 5.3.5). Then, I show which are the main theories concerning affordances (those of Chemero 2009, Turvey 1992 and Reed 1996) and I conclude that their depiction of dispositionalism is not similar to that of Chapter 4: rather than to dispositionalism, Turvey (1992) and Chemero (2009) would be committed to a certain variety of tropism (see 5.5), with all its disadvantages (Tugby 2013). Finally, I show that the Rylean anti-factualist approach is a very suitable framework for explaining affordances.

Chapter 6: After showing why Rylean anti-factualist dispositionalism is the most suitable framework for understanding affordances, now it is time to analyze in which sense we can claim that they are related to our normative practices. For this reason, Chapter 6 is devoted to analyze how we can understand normativity in an anti-factualist way. This notion of normativity is useful for making sense of our norm following and unreflective behaviour. The chapter explains that normative practices are socially mediated and rule bound (see 6.2). This allows for two main features: the possibility of error and the epistemic responsibility of agents concerning normative practices for differentiating between ‘it is correct’ and ‘it seems correct to me’. Following Wittgenstein’s (1953) argument against the possibility of a private rule-following behaviour (see 6.2.6.1), a non-social agent would not be able to differentiate between what is right and what seems right if there is no community that could sanction or reinforce its behaviour, so an action would be right and wrong for the same agent depending on how the agent interprets the norm, hence the terms ‘right’ and ‘wrong’ would be of no use, leading us to a paradoxical situation. These ideas on normativity are going to be useful for analyzing how other embodied, situated and anti-representational approaches conceive normativity, such as enactivism in Chapter 7 and Chemero’s approach to affordances in Chapter 8.

Chapter 7: this chapter deals with the notion of normativity that is defended in the enactive approach to cognition. After presenting the main features of enactivism (see 7.2), I apply the Wittgensteinian arguments and the ideas of Chapter 6 (mainly 6.2.6.1) to show that the enactive approach cannot support a consistent notion of normativity. Enactivism’s ideas on situated cognition, embodiment, and agency are celebrated.

Chapter 8: In this chapter I apply the analysis of normativity developed in Chapter 6 to Chemero’s (2009) approach to affordances. Chemero rejects the idea that affordances could be understood as dispositions. After arguing in Chapter 5 that his ideas on dispositions are not shared by the main defenders of dispositionalism (see 5.5.2 and 5.5.3), I show that his ideas on the normative aspects of affordances are unmotivated. He claims that affordances should be understood as normative relations because one can fail when taking advantage of an affordance (see 8.2). I offer three different reasons why this is not a correct characterization of affordances: first, because he confuses perceptual error with action error: one

can fail when taking advantage of affordances, but this is not the same as perceiving affordances erroneously (see 8.3.1); second, because if we analyze Shaw's principle of symmetry (see 3.2.10), there is no possibility of perceptual error in ecological psychology (see 8.3.2); and, finally, because Chemero's approach to normativity cannot face the Wittgensteinian arguments against a private model of rule-following behaviour (see 8.3.3). Finally, I claim that there is a way in which the taking advantage of affordances can be related to norm-following behaviour, but always taking public practices as a background reference (see 8.4). After dealing with normativity in this chapter, I analyze in the last two chapters how to understand the content of our perceptual states regarding our experience of affordances.

The chapters regarding perceptual content start in Chapter 9. In this chapter I analyze which is the best framework for characterizing our perceptual content when we experiencing affordances, taking the Dreyfus-McDowell debate as a starting point. The debate is a very suitable starting point for analyzing the perceptual content of our experiencing affordances due to the role of affordances in the debate. First, I depict Dreyfus' phenomenological approach to content and McDowell's conceptualism (see 9.1) and I show that McDowell's conceptualism is preferable because it explains how to connect perceptual content with the rest of our rational abilities without falling under any mythical explanation. He claims that the perception of affordances implies a kind of content that it is not conceptual, but emotive or phenomenological, and that cannot be related to our rationality because it does not have the same nature. Dreyfus' approach defends that our perceptual content is not conceptual, so we cannot relate our experiences to our rational abilities; this leads us to the myth of the mind as detached. But conceptualism is able to avoid this myth by claiming that every experience is suitable to be taken at face value, so this means that every experience has the potentiality to be conceptualized if our rationality permeates perception, hence we can relate experience to our rational abilities and justify our unreflective behaviour (a shorter version of these ideas are summarized in 6.2.3). Dreyfus claims that affordances are unable to be conceptualized, but McDowell shows how it is possible (see 9.6). Once it is shown that conceptualism is preferable over phenomenology, it is time to explore which kind of conceptualism can account for our experience of affordances.

Chapter 10 shows why a version of conceptualism, called *minimal conceptual-*

ism, is the most suitable approach to understand our experience of affordances. The main problem with standard conceptualism is that it is representational, because it implies that the content of perceptual experiences is a proposition that represents a state of affairs (see 10.1). But minimal conceptualism, which is based on McDowell's (2009) notion of intuition, shows that there is no need to possess a whole proposition as the content of our perceptual states in order to explain what it is to have something in view (see 10.3). I will show that defending a minimal conceptualism for explaining what it is to have something in view does not necessarily entail representationalism, because we only need to postulate an intuitional, conceptual content (which is not propositionally structured) for explaining perceptual content in those cases. However, the conceptual shape of the intuition makes it suitable for being part of a proposition that could be the content of another mental state. But when we explain which kind of content we possess when we have something in view we do not need to postulate a proposition. Thus, a mere intuition would not represent a state of affairs when we explain what it is to have something in view. It is the proposition the one that represents a worldly state of affairs, not the intuition. This is tightly connected to the idea of truth as correspondence: this idea states that truth is a relation of correspondence between a proposition and a fact. This means that this relation of correspondence is based on the thought that, if the same structure of the proposition is shared with the structure of the fact of the world, then the proposition represents the fact and the proposition is true inasmuch as it corresponds with a fact. Taking this a starting point, I claim that an intuition does not have any representational function or truth-value inasmuch as it is not propositionally structured. Thus, minimal conceptualism can combine the main advantages of conceptualism (the rejection of the myth of the mind as detached and the rejection of Givenness) while it avoids the main flaws of propositional or strong conceptualism (representationalism and generality).

Finally, the Appendix A analyzes the Travis-McDowell debate on Givenness. There I show that Travis' arguments against conceptualism could be overcome if a minimal rather than a strong variety of conceptualism is defended. This complements and reinforces the minimal conceptualist approach that has been defended in Chapter 10.

Chapter 2

Theoretical background

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2.1 Introduction

This chapter¹ aims to offer a clear picture of the background assumption that works as a theoretical basis for this dissertation. The main idea that I am going to defend here (and throughout this dissertation) is that the normative aspect that some of our cognitive abilities possess should be understood in a non-factualist way (see also 4.4.1, 6.2, 6.3 and 9.1). I defend that this non-factualism concerning the normativity of some of our cognitive abilities is fully compatible with ontological naturalism (see page 37). In a nutshell, I embrace a naturalistic worldview (see 2.2.1), but this does not mean that the normative aspect of mental concepts, cognitive or mental abilities or norm-following actions possesses a status that is factual (see 2.4.3); this is, identical to that of scientific properties or entities (like atoms, bodies, chemical substances, etc).

How does this approach affect the explanation of some of the main features of affordances? This dissertation aims to offer an explanation of affordances as dispositional properties from an anti-factualist, Rylean way. This means that the normative aspect of affordances is not factual (see 5.5 and Chapter 8). While the present chapter offers an explanation of why normativity should be understood in non-factual terms, Chapter 6 makes explicit how we could understand normative behaviour within the anti-factualist approach that is offered in this chapter. Finally, Chapter 8 inherits the main ideas of Chapter 6 and Chapter 7 in order to make explicit in which way affordances are normative (see especially section 8.4 on page 177). One of the main influences that invite us to consider normativity as non-factual is Ryle (1949/2009). His ideas on dispositions and normativity are tightly related, and this is why I claim that affordances could be considered as dispositions. These dispositions possess a normative character, but always from a Rylean, anti-factualist perspective (see 4.5, 5.5, 6.2.3, and 6.3). Thus, this chapter offers a background from which I can start depicting the main ideas that guide the analysis of affordances to which this dissertation is devoted.

¹Chapter 2 is substantially based on a paper presented at the 1st CFP: Phenomenology and Naturalism, 2nd Annual Conference of the South African Centre for Phenomenology, University of Johannesburg.

2.2 Naturalism

Placing normativity (or more specifically, the normative aspects of our mental or epistemic states) within a naturalistic worldview has been a major challenge for philosophy for the last 100 years. In fact, it would be possible to trace this project going back to the theories of the so-called natural philosophers of the Enlightenment and, of course, to Kant's (1781/1929) *Critique of pure reason*. Although the term 'naturalism' is widely used in philosophy, there is no specific, well-defined perspective, programme, set of theses or theory that either naturalists or non-naturalists would accept as defining naturalism. Quite the opposite: naturalism, at the very least, can be understood in three seemingly independent ways: ontologically, methodologically and epistemologically.

2.2.1 Ontological naturalism

Ontological naturalism is committed, roughly, to the idea that everything that exists in the world, every object, property or event, is a scientifically describable and measurable entity. This assumption can seem very intuitive and useful and, indeed, it arguably lies at the heart of Modern science: it allows, for instance, to get rid of any appeal to mysterious, supernatural entities that would obstruct and obscure our ontology. It may not be the only way to achieve that, but it is certainly an effective strategy. Thus, naturalist philosophers of mind reject dualism and try to explain our cognitive abilities in terms of biological (Pinker 1997, 2002), biochemical (Bickle 2003), or even physical (Lewis 1999: 33-4) processes. Again, this may not be the only way to avoid dualism, but it's a powerful and highly influential one.

2.2.2 Epistemological naturalism

Epistemological naturalism claims that all epistemic features of our cognitive practices, including practices traditionally considered non-empirical, such as mathematics, logic or conceptual analysis, can be explained by the natural sciences. Attributions of knowledge or belief, despite their normative appearance, should

be understood in terms of the causal processes of belief or knowledge acquisition, processes that are not only constrained but also exhausted by happenings in our nervous systems in its causal connections with the environment. Epistemology ceases to be an independent subfield of philosophy and becomes a branch of psychology (Quine 1969).

2.2.3 Methodological naturalism

Methodological naturalism claims that there is a *continuum* between the methods of philosophy and those of the natural sciences. There is no consensus regarding what such a continuity involves: some naturalist philosophers claim that philosophy should take into account the discoveries of science inasmuch as philosophy and science share a common target (namely, to understand and define reality), like Russell (1903), while other naturalist philosophers claim that the relation is stronger (philosophy is part of the sciences) and consequently they propose to blur the boundaries between both fields, like Quine (1969). At the very least, methodological naturalism is committed to the idea that nothing that philosophy claims about reality can contradict the best-established discoveries of science. Denying this last, weakest sense, of methodological naturalism certainly places someone in the anti-naturalist sphere.

Endorsing just one of the previously mentioned species of naturalism does not lead to necessarily endorse the other two species of it (at least in principle). One can endorse, let's say, ontological naturalism without endorsing epistemological naturalism or the Quinean version of methodological naturalism (Lewis' philosophy seems to be an example of that, for example).

2.3 Factualism and descriptivism

If this dissertation aims to offer an anti-factualist approach to dispositions and normativity, a clear definition of factualism and descriptivism should be provided. We will see in the next section 2.3.1 the connections between factualism, descriptivism and naturalism.

Factualism is a thesis on the philosophy of mind and language, but also on epistemology, by which beliefs are, or include, mental states that are factual or possess factual properties.

Descriptivism is defined as including factualism. Accounting for a belief, from a descriptive approach, is nothing but to describe that belief as a mental state that holds at least one factual property.

2.3.1 The descriptivist fallacy

Austin, Sellars (1956), Ryle (1949) and Wittgenstein (1953) argued against the so-called ‘descriptivist fallacy’. This fallacy started as a semantic one. The descriptive fallacy is identical to “the dogma of descriptivism in philosophical semantics, whereby it’s assumed that since semantic content of indicative sentences is standardly given in terms of their truth-conditions, *the characteristic function of all indicative sentences is to describe worldly objects, properties, and relations*” (Chrisman 2007: 227, italics added). So, semantic descriptivism states that our language is merely fact-stating; this is, that its sole function is to describe how the world is, where this is understood as describing facts (Brandt 2015: 35). Inasmuch as the description offered is of facts, this descriptivist approach is clearly compatible with naturalism. Factualism, descriptivism and naturalism are sometimes the three sufficient elements of an approach based on the following idea: if our vocabulary is fact-stating, then the function of our language is purely descriptive and these two ideas suffice for guaranteeing ontological and/or epistemological naturalism. This descriptivist fallacy is still present in contemporary philosophy, especially in epistemology. As Chrisman (2007: 243) puts it: “metaepistemologists have succumbed to the dogma of descriptivism and thus [have] taken it for granted that knowledge claims express a descriptive mental state and thus have to be understood in terms of the attribution of some constellation of factual properties”. This dogma of descriptivism is identical to the descriptive fallacy as applied to epistemology, which states that “[epistemic descriptivism] construe[s] knowledge claims as the attribution or denial of some (robust) epistemological relation.” (Chrisman 2007: 227). This idea, applied to the philosophy of perception, means that the attribution or possession of perceptual knowledge is based on a description of a relation between a perceiver and a fact or the world that is perceived. This descriptivist, factualist

approach is an old one in the epistemology of perception. I claim, against defenders of factualist approaches (and enactivists, some phenomenologists like Dreyfus, sense-data theorists and Chemero (2009) could be considered to be among them) that the normativity of our perceptual experiences should not be understood as being factual or descriptive.

In the following sections and also in other chapters of this dissertation (see especially sections 4.5 and 6.3) I sketch some ideas of why factualism is not suitable for understanding normativity, especially our embodied and situated norm-following behaviour². The main ideas that support this motivation are depicted in the next section.

2.4 Naturalism and normativity

What I am going to analyze here is the compatibility of the normative, common-sense vocabulary that we use to speak about cognition, perception and action with an equally intuitive naturalist ontology. I will side with those philosophers who claim that there is no tension between these two assumptions, and distance myself from those who see the normative and the scientific as pulling us in opposite directions, such as Churchland (1981) or Churchland (1986). I will claim that the tension emerges from the insistence to find a *place* for the normativity of cognition within the stuff postulated by a scientific account of reality. Not everything that can be truly said about the world can be said in the vocabulary of the natural sciences because not everything that can be truly said about the world has a (merely scientifically) descriptive character. The “placement problem”, to use Huw Price’s (2011) apt phrase, is the most lasting Cartesian heritage, far more widespread than dualism, representationalism or infallibility.

If we equate ‘natural’ with the subject matter of the natural sciences we seem to face a trilemma regarding values and norms: either they resonate with non-natural, spooky properties or entities (normative facts, aesthetic or ethical properties), or we reduce such properties and entities to *bona fide* natural stuff (reductionism), or we cease to have any entitlement to justify and ground our normative judgments

²See 3.1 for a definition of embodiment and situated cognition. See Chapter 6 for a characterization of this kind of behaviour.

(eliminativism).

Leaving aside eliminativism, I am going to discuss the two most influential contemporary ways of naturalizing the normativity of the mental: reductionism and emergentism (understood in its most recent version, enactivism³). After this, I will show that these two strategies share a common factualist assumption (see 2.4.2), and I will argue that this assumption is the main obstacle to see the normativity of the mental and naturalism as compatible (see 2.4.3). Thus, I will propose that a non-descriptivist approach to the mental is the best way to understand what we do when we use normative concepts within a naturalistic account of reality. Hence, ontological naturalism and the normative aspects of our common sense jargon will be compatible inasmuch as we consider the latter within a non-descriptivist, non-factualist framework. This framework, increasingly influential in the literature, can be traced back to Wittgenstein (1953), Ryle (1949), Sellars (1956)⁴ and can also be found in contemporary philosophers such as Brandom (2015), Price (2011) or Gibbard (2012).

2.4.1 Factualist and descriptive approaches to the naturalization of normativity: reductionism and emergentism

In recent years, the two most influential strategies in cognitive science for naturalizing normativity, besides the plain elimination of intentional idioms in our understanding of perception, cognition and behaviour, have been reductionism and enactivism.

According to reductionism, the properties talked about in higher-level scientific domains can be reduced to properties of lower-level (Churchland 1989). ‘Reduced’,

³A more detailed analysis of enactivism will be presented in 7.2.

⁴Even when Sellars has been sometimes mentioned as an author that accepted the clash between our scientific explanations and our common sense vocabularies (Sellars 1956), some authors (Brandom 2015: 30-2) have suggested that two interpretations can be derived from his work: one interpretation, known as left-wing Sellarsianism (Sellars 1956, §36) would be committed to the ineliminable character of our normative and common sense expressions, while right-wing Sellarsianism (Sellars 1956, §41) would be committed to a version of scientific naturalism. Here I accept the difference and I include passages of Sellars (1956) that support the left-wing interpretation of his work.

in this context, means that the concepts used to refer to properties of a theory correspond to concepts of another, more basic, theory. The conclusion is that there is only one property “which is most perspicuously characterized in terms of reducing vocabulary” (Lennon and Charles 1992:2). By ‘perspicuously characterized’ they mean that the reducing vocabulary works better in explaining or capturing the nature of certain phenomenon (this is, the lower-level theory locates the property at the corresponding level or layer of nature to which the property belongs). A classical example of applied reductionism is the attempted reduction of our psychological states to our neural connections. Thus, for the reductionist philosopher, the normative properties of our common-sense expressions (‘believes that’, ‘wants that’, etc.) that govern our mental states are properly understood at the level of the causal, physico-chemical interactions among our neurons (Bickle 2003).

Emergentism, in contrast, claims that there are certain properties that cannot be understood if we reduce them to the parts that constitute them (Broad 1925). Unlike reductionism, emergentism claims that the properties postulated by a higher-level explanation cannot be fully understood if we do reduce them to lower-level explanations: some properties of water (like crystallization, for example) cannot be understood (or even found) if we look for them within the chemical structure of hydrogen and oxygen. Enactivism (the most recent version of emergentism regarding cognition) presents itself as a full-blown alternative to reductionism, by claiming that the direct interaction of the agent with its environment, unmediated by representational processes, is to be explained in terms of its capacity for adaptivity, self-stability and self-production (Di Paolo 2005, see also 7.2). Being alive and being subject to normative considerations is one and the same thing, because the norm of the living is to keep its stability going. While reductionism typically equates mental properties with physical and chemical properties of the agent’s nervous system, classic enactive emergentism demarcates the cognitive from the non-cognitive inasmuch as the cognitive is norm-governed: cognition is continuous with life because cognitive processes also allow for the stability of the system. To be alive and to be cognitive are one and the same thing. While self-stability is a sort of all-or-nothing normativity, Di Paolo (2005:438) developed the notion of adaptivity as the capacity that agents possess to regulate their own state in relation to environmental changes. This gives rise to the notion of sense-making, the relational and valuable aspect that comes with the interaction between agents and their environments: a bacterium uses sugar as a source of nutrients, but sugar’s

edibility is not an intrinsic property: it is only valuable *in relation to the agent* that takes advantage of it. This relational aspect of sense-making is the ultimate normative aspect of action and perception within the enactivist framework. All biological phenomena (and this includes the cognitive ones) are normative and this is the essence of the difference between biology and physics: there is a normative character of biological systems (that allows for the persistence of the living) that contrasts with the mechanistic character of physical systems. This is also, for the enactivist, the difference between action and movement: movements are mere random causal triggerings of parts of our body, while actions are coordinated movements of the agent that follows the norm of keeping the self-stability of its system. Thus, for them, cognitive phenomena are *perspicuously characterized* as biological processes.

2.4.2 The common assumption

Despite the differences between these two approaches, they both share what I take to be a highly problematic assumption, namely, the idea that cognition is an empirically describable process. Cognitive capacities are either neural physico-chemical processes (in the case of reductionism) or properties that emerge from natural processes and are themselves natural (like normativity in the case of enactivism). In both cases, our explanations of cognition are taken to be descriptive, on a par with the explanations of the natural sciences. To describe an agent as being aware of some feature in its environment is to do the same kind of thing as (let's say) attributing a certain weight to a subatomic particle or as describing the mechanics of the sodium-potassium pump. For reductionism and enactivism, cognition is considered to be a fact, or a process, that is describable by science, and our natural language expressions should be part of a theory whose statements directly refer to certain scientific facts. Even when emergentism locates the normativity of cognition as a property that is better explained biologically and, in contrast, reductionism tries to account for it at the more basic physico-chemical level, both share the premise that the normative aspect of cognition is a scientific fact that should be part of the ontology of our reality.

There are two reasons why this common premise should be rejected. On the one hand, that there are natural properties (having such and such a nervous system or

a retina that reacts differentially to luminous stimulation within this or that range) that enable perception and cognition does not imply the need to introduce mental or cognitive properties, objects or facts in our ontology. On the other hand, there are perfectly valid and, indeed, ineliminable, explanatory practices that appeal to abilities, to the relevance of features of the environment for the agent as a whole, and that make essential use of intentional idioms that make salient normative patterns. The key point consists in not mixing both levels of understanding.

2.4.2.1 Explaining an ability is not describing a fact in a scientific way

I believe that if we assume that we can describe certain abilities (with their normative character) as if they were identical with certain facts of nature we are committed to a problematic thesis. To begin with, we cannot capture abilities (or their normative character) by just pointing at scientifically describable facts. The mere description of a movement is not enough for explaining an action: a parrot and a human animal are able to produce the same sounds, but we would not say (based solely on those movements) that a parrot is committed to the consequences of its utterances the way a human being is. The problem of the descriptivist approach is that this strategy does not suffice to explain the normative character of our mental abilities. Then, the task is to clarify what do we mean when we claim that certain action has been performed following a norm. One typical conclusion that comes to our minds when we claim that the normative aspects of our abilities should not be explained as scientifically describable facts is the intuition that this idea could entail that abilities and skills are spooky entities or processes. But, on the contrary, to put it in Gilbert Ryle's (1949/2009: 22) words:

Now a skill is not an act. It is therefore neither a witnessable nor an unwitnessable act. To recognise that a performance is an exercise of a skill is indeed to appreciate it in the light of a factor which could not be separately recorded by a camera. But the reason why the skill exercised in a performance cannot be separately recorded by a camera is not that it is an occult or ghostly happening, but that it is not a happening at all.

In Ryle's view, skills or abilities are not identical with the actions or exercises that actualize them. The point that Ryle highlights is that not every explanatorily relevant discourse is referential (this is, related to a particular set of facts). Contemporary expressivist semantics offer a very elegant account of many natural language terms (paradigmatically, logical and ethical concepts, but also epistemic and modal operators) without postulating corresponding natural entities. As we have seen in 2.3, from a descriptivist point of view, when we claim that some agent possesses a skill (say, the capacity to act in such and such a way, or to infer this from that) we are asserting a matter of fact. Descriptivism seems committed to the representationalist idea that one statement can only be true if there is some worldly state of affairs that makes it so. In contrast, from an expressivist point of view, when we claim that an agent possesses certain skills (or when we report her as saying that she wants a cigarette) we *express an evaluation* of certain situation based on specific criteria of correctness (see section 6.1 on page 126 for a deeper analysis of correctness criteria). Those expressions do not need to describe or stand for certain entities in the world, neither they represent them; instead, they evaluate if the agent that performs an action or makes a statement is following certain criteria of correctness. These expressions made by means of our common sense vocabulary only reveal the commitments that an agent acquires when she utters them. In this sense, our common sense vocabulary is a powerful tool that, rather than describing our reality, makes explicit the previously mentioned commitments in order to make them intelligible.

2.4.2.2 The is-ought fallacy and the difference between the nomological and the normative

The second main reason to reject the premise shared by reductionism and emergentism is this: when we move to the sphere of normative concepts, those that involve a distinction between correct and incorrect performances, the naturalistic enterprises under criticism feel forced to ground the justification of our evaluative judgments on statistical patterns or on dispositions to behave. For them, claiming that an agent possesses certain ability is analogous to describing certain particular movement(s) of the agent. But to do so is not to explain what it means for an agent to possess certain ability; rather, to do so is to embrace a variety of the is-ought fallacy. As Sellars (1956, §5, italics added) claimed:

[T]he idea that epistemic facts can be analyzed without remainder — even in principle — into non-epistemic facts, whether phenomenal or behavioral, public or private, with no matter how lavish a sprinkling of subjunctives and hypotheticals, is, I believe, a radical mistake — a mistake of a piece with the so-called “naturalistic fallacy” in ethics.

The is-ought fallacy amounts to the claim that a normative statement (perceptual, epistemic, related to actions, etc.) can be directly derived or inferred from mere factual statements. This means that normativity is a scientifically observable property and can be derived from mere scientific facts. Enactivist emergentism claims that normativity is a biological property and, also, that it can be inferred and measured by scientific, computational models (see Barandiaran and Egbert 2013). The problem with this idea is of a conceptual, categorical character: statistical patterns just show that the same causal response is triggered under similar conditions, but we cannot infer that the agent is following a norm when it responds in that way just because it shows a statistical tendency to answer in that way. It is necessary to include other conditions to talk about the normative character of an action (the possibility of error, the possibility to distinguish ‘it is right’ from ‘it seems right to me’, participation in a practice, etc. See section 6.2 on page 126 for a deeper analysis on the conditions to talk about normativity). If a statistical tendency were the only condition, we would live in a world in which universal gravitation and natural selection would be as normative as the rules of chess (see Sellars §33 (3) to find a similar example). The former are scientific laws and the latter is a norm-governed game. One can be wrong or make a mistake when playing chess, but planets cannot calculate incorrectly the orbits that they should follow and, likewise, bacteria cannot be trained not to malfunction. Scientific (physical, biological) laws or statements can express the causal connections and reactions between entities or forces, but this is not the same as justifying or evaluating certain action or commitment. This is the difference between the nomological and the normative (see 8.3.2). Justifying is what we do when we claim that we perceive, believe or know how to do something. Again, as it was expressed by Sellars (1956, §36, italics added):

[I]n characterizing an episode or a state as that of knowing, we are not giving an empirical description of that episode or state; we are placing

it in the logical space of reasons, of justifying and being able to justify what one says.

After giving some reasons for claiming that normativity cannot be a scientifically describable property, I will finish this part by offering a non-descriptivist account of the role and nature of the normative character of our cognitive states and abilities. This picture will be addressed in more detail in the following chapters (especially the whole Chapter 6 and also in section 9.1 on page 181), but a brief sketch of the most basic commitments is offered in the next subsection.

2.4.3 An anti-factualist and anti-descriptivist approach to normativity

As we have seen in the previous section, the rejection of the factualist premise shared by both strategies opens the door to think of our cognitive, agent-level explanations of our abilities in terms of commitments to certain conditional and counterfactual statements regarding the behaviour of the agent.

The cunning of the fox is in no way like the brown colour of her fur. If the fox had two options, she would systematically choose the one that is more deceitful for the rabbit, if such and such were the case, she would display her skill so and so, etc. No spooky or physical property makes our judgments about her cleverness true. Against reductionism, explaining behaviour intentionally is to engage in explanatory practices at a different, agential level, rather than describing something in the vocabulary of, say, physiology. To look for the property of being cunning amongst physical or chemical properties is the result of a category mistake⁵, influentially made by Descartes and almost as famously criticized by Gilbert Ryle (1949/2009) and Ludwig Wittgenstein (1921/1922, 1953).

Descartes' error wasn't just to claim that there must be a vaporous, non-extended substance different from the physical. Neither was, as enactivist approaches within cognitive science take it to be, its characterization of the mind as a representational device, infallible regarding its own contents. We can give up

⁵A category mistake is an error in which something belonging to a particular category is presented as belonging to another category. This is analyzed in detail in Ryle (1949/2009)

dualism, representationalism and infallibilism and still be on the grip of Descartes' picture, because what is central to it is to think of the mind as an entity, as an organ, as a *res*. We can devoid such an organ of the features that Descartes associated with it and still retain the analogy with the physically describable. The mind is not a ghost, but neither it is a machine. The main problem is, as we have seen, the descriptivist and factualist spirit that inspired the idea that we possess mental properties that are as describable as the properties postulated by the natural sciences. If reductionism (based on property identity) identifies mental with physical properties and hence tends to commit category mistakes (such as 'your eyes see', 'your brain decides', etc., but also 'your mind decides' or 'your mind wants'), enactivism (rejecting property identity) claims that the normativity of the mental is of the same kind as the normativity of the biological, and the normative aspects of our thoughts and actions are as describable as the biophysics of our processes.

In contrast, this work takes as a starting point that when we claim that some mental or cognitive action is normative, we claim that there is a norm or criteria of correctness that allows us to appraise the way the agent performed her actions. We *evaluate* her action in terms of certain standards, and those standards are not properties as her weight or her speed are, but conditions or criteria that we need in order to make sense of her performances as right or wrong (see 6.2.1). We do not attribute a linguistic or discursive ability to a parrot because the parrot cannot be committed to the consequences of its utterances in different contexts the way that humans can. This is so because the parrot is not aware of the standards of correction that guide our linguistic performances and the inferential role of the concepts that he need to possess. This has nothing to do with some measurable, scientifically describable property; rather, the normative character of cognition comes from a socially established process, inasmuch as normativity implies the possibility of error, the distinction between 'it is correct' and 'it seems correct to me', training, sanctions, iterability and the like (again, see 6.2 on page 126 for a deeper explanation of all these features). The idea that will be supported throughout this work is that those requirements can be only fulfilled within a society (because you have to learn how to follow rules *via* the training, the social reinforcement and the sanctions of a community that guides agents). Thus, it is more plausible to consider this general aspect of the normativity of cognition as something whose sources are social rather than individual, so there would not be a logical possibility to conceive a non-social agent as able to follow a rule (Wittgenstein 1953 emphasizes the social character

of rule following in multiple passages or his work, such as PI §202. See 6.2.6.1 and 7.3 for a deeper explanation of these ideas).

2.4.3.1 The compatibility of ontological naturalism and normativity from an anti-factualist perspective

Finally, how all this non-descriptivist stance can be compatible with ontological naturalism as seen in 2.2.1? In short, because our cognitive abilities do not stand for facts (be them entities or processes) that can be perspicuously characterized in special (scientific) discourses. Neither our normative, common sense vocabulary is ineliminable because it stands for those properties / entities, nor the scientific language of physics or biochemistry is suitable for describing them. The (factualist) problem is just to postulate that our embodied and situated non-following practices are the same kind of entities or facts as they are the agents that hold them. On the contrary, those practices or abilities are not entities or processes themselves: they are not spooky or natural entities; they do not enhance our ontology. Our normative vocabulary is compatible with ontological naturalism because it expresses the commitments and evaluations that agents acquire when they cope with other entities in the world, such as persons and things. Reductionism, eliminativism and emergentism are trapped by the same factualist interpretation of those expressions. The only approach that can solve the well-known question of where can we place the normative among the natural or the causal is showing that the normative is not constituted either by spooky or by natural entities and, hence, that it occupies no natural or non-natural space at all. This idea motivates the election of Rylean anti-factualist dispositionalism over other (factualist) sorts of dispositionalism in Chapter 4 (see especially section 4.5 on page 95). Also, this approach is the one chosen to explain affordances as dispositions from an anti-factualist approach (see 5.5).

2.5 Conclusion

In conclusion, agential, intentional and, in general, cognitive idioms are ineliminable, not because there are corresponding properties of the world, but because biological, cognitive and rational phenomena become unintelligible without them.

Hence, it is possible to be committed with ontological naturalism and a folk psychological explanation of our mental world inasmuch as we endorse a non-descriptivist stance towards our mental abilities. This approach will be key to understand not only the approach to normative behaviour in Chapter 6, but also to understand the main arguments against the Platonic consequences of dispositionalism in Chapter 4. But, before arriving to these issues, let's focus first on the main principles of ecological psychology.

Chapter 3

An introduction to ecological psychology

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3.1 Introduction: an anti-representational, embodied, situated and biosemiotic approach to cognition

Ecological psychology¹ is a field of psychology pioneered by J. J. Gibson (1966, 1979). As it is depicted in the introduction, ecological psychology aims to be a full-blown cognitive psychology² whose main principles are different from both behaviourism and cognitivism. Ecological psychology is an anti-representational, embodied, situated and biosemiotic approach to cognition that started its development from perception and action, and it is still attempting to explain more cognitive phenomena, such as learning (Jacobs and Michaels 2000) and language (Reed 1996), through a bottom-up approach. It is a bottom-up approach because ecological psychology aims to explain cognition from its very simple constituents (agents and their environment) and their interactions, analyzing how different levels of explanation and different cognitive functions emerge. To understand the ecological approach through its main features, it is first necessary to define them.

Anti-representationalism claims that the postulation of mental, neural, psychological or linguistic representations for explaining cognition is unmotivated. In the philosophical realm, expressivism (Price 2011), pragmatism (Rorty 1979), phenomenology (Merleau-Ponty 1945/2012, Dreyfus 1972, 1992) and enactivism (Noë 2004) are the main traditions that offer an anti-representational approach to cognition. In the English-spoken tradition of the philosophy of language, this movement is based on the insights of post-positivist authors such as Austin (1962).

¹The main ideas of this chapter are taken from section 3 of Heras-Escribano and Pinedo (2015). Are affordances normative? *Phenomenology and the Cognitive Sciences*, 1-25. I am especially thankful to David Travieso, David Jacobs, Lorena Lobo and Jorge Ibáñez for fruitful comments and discussions.

²Some authors claim that Gibson did not aim to develop a full-blown cognitive psychology (Michaels and Carello 1981, Ullman 1980). As Reed (1991: 172-3) points out, "(...) this sentiment –however widely promulgated– is simply and utterly false. Gibson thought of his as a cognitive psychology, and of perception as a cognitive function. (...) Ever since the 1950s, when he self-consciously abandoned the response theory of cognition and behaviourism (...), Gibson considered his account of perception to be a theory of how animals come to know their environments –a theory of cognition. Gibson’s last two books (...) are replete with explicit discussions of the psychological issues concerning cognition, language, memory and imagination, discussions which have been ignored or worse throughout the entire secondary literature on Gibson’s work”. Reed offers an exhaustive exegesis of Gibson’s unpublished manuscripts, showing sufficient evidence in favour of the previous depiction of Gibson’s approach.

The pioneering work of Dewey (1898) on the reflex arc has been increasingly influential in psychology: ecological psychology (Gibson 1966, Gibson 1979, Michaels and Carello 1981, Turvey 1992, Richardson et al. 2008) greatly benefited from it, as well as the neurosciences, where the work of Freeman (2001) and O'Regan (2011) is clearly a development of these Deweyan and ecological ideas.

Embodiment or embodied cognition is a thesis that can be summarized as follows: we need to appeal to our whole body, and not just to our brain, in order to understand our cognitive life (Calvo and Gomila 2008). As we can see, this thesis goes against those views according to which we just need to describe the activity of our brains if we want to describe mental features or abilities (Churchland 1986, Bickle 2003). This has been influential in experimental psychology, neuroscience and also in philosophy. Following embodiment, our mental states would be attributed not just to our brains, but also to the rest of our bodies (this is, to agents as a whole). For example, we do not claim that the property of being hungry is just a property of brains or stomachs alone. Of course, without those organs we would certainly not be in a state of hunger (they play the role of a necessary or enabling condition for being in those states), but that differs from saying that being hungry is an exclusive property of those organs (it is not sufficient to possess those organs in order to attribute that estate or property). Thus, our experience of being hungry affects us (agents) as whole, not just some parts of ourselves. Our brains do not have experiences, we do.

In this sense, the embodiment thesis would underline the agential and personal perspective that was defended by Ryle (1949) or Wittgenstein (1953) in order to understand experience, and that has been recently vindicated by some authors (Bennett and Hacker 2003) against a purely brain-centered view for understanding cognition. The recent literature on the role of the body and the environment in a proper understanding of experience is vast (for especially influential proposals, see Clark 2008, Gallagher 2003, 2005 and 2009, Zahavi and Gallagher 2008, Gibson 1979, Hurley 1998, Lakoff and Johnson 1999, Noë 2004, Noë and O'Regan 2001, Port and van Gelder 1995, Shapiro 2010 or van Gelder 1992).

Situated cognition is the idea that cognition is a situated process, be it constrained or constituted by environmental, social or cultural contexts. Most authors that are committed to embodiment are also committed to situated cognition, both in the philosophical field and in the cognitive sciences (Gibson 1979, Noë 2004,

Noë and O'Regan 2001, Port and van Gelder 1995, Clark 1997, Dreyfus 1992, Gallagher 2009, Merleau-Ponty 1945/2012, Di Paolo 2005, Gadamer 1960/1989, Rowlands 2009, Chemero 2009).

Biosemiotics is a growing discipline that combines ideas from biology and semiotics and that studies the production of informational patterns in nature. Biosemiotics aims to explain how we can find information in nature that can play a role for explaining behaviour. Some pioneers of this subdiscipline were von Uexküll (Uexküll et al. 1940/2010) and Sebeok (1976). Recent developments in biosemiotics are due to the Copenhagen-Tartu School of Biosemiotics (Kull et al. 2009, Emmeche and Kull 2011). The main idea of biosemiotics is that there is certain kind of information in the environment of living beings that is useful for them because it makes them adapt and adjust their behaviour. This is why von Uexküll is considered as an antecedent of contemporary ethology, because his work aimed to explain behaviour from a biological perspective. von Uexküll's notion of *Umwelt*, which means 'environment' or 'self-centered world' (Kull 2010) stresses the idea that each living being lives in a world which is *meaningful* to it, so that every living being is able to perceive certain informational patterns that compose its particular point of view in nature.

Thus, the *Umwelt* is not the environment or the organism, but the organism in the environment, taken both as a unity. Every *Umwelt* is in continuous change and shaping, and the mutual affection of organism and environment is what constitutes the *Umwelt*. This is why *Umwelt* is understood as a functional unity that shapes the perceptual life of every organism. In conclusion, every *Umwelt* is unique and exclusive.

Although ecological psychology is not explicitly related to von Uexküll's theses, it is considered as a biosemiotic approach due to the idea of ecological information. The main similarity for the ecological approach and the biosemiotic approach in the line of von Uexküll is that there is certain kind of information that is key for understanding the behaviour of organisms. However, while biosemioticians have a very wide notion of information (which include sensations of all kinds and purely physical forces), ecological psychologists restrict their notion of information to that of ecological kind, showing that there is a clear distinction between sensation and perception. While perception is informational, sensations are not. And perception is ecologically informational because it is a kind of information that emerges at the

ecological scale. Biosemioticians do not support such a narrow view on information. Also, ecological psychologists support the idea that the environment is *meaningful* for agents, but it is so because it is *ecologically informational*.

All these elements together give rise to ecological psychology. In ecological psychology, perception and action are understood as a continuum, or as two sides of the same process: perception and action are so intricate that we cannot understand one without the other. Besides, we cannot understand the active and perceptual features of agents without appealing to their environment or ecosystem: for this reason, the basic unit of analysis in ecological psychology is the agent-organism / environment system (O-E system). This system is understood within the ecological scale, a level of explanation in which we can understand the perception and the activity of agents in a biosemiotic way: this is, in terms of the emergence of ecological information. The objects of perception at the ecological scale are affordances, the possibilities for action that every agent finds in her environment.

Thus, affordances are the key concept of ecological psychology. They were defined as ‘opportunities for action’ in their original formulation (Gibson 1979/2015). Breaking the subject-object dichotomy, affordances were considered not as a property of the agent or a property of the environment, but a property of both taken as a unity. This unity, as it has already been said, was called the organism-environment system (O-E system). This system or coalition, from the ecological perspective, is defined as the proper unit of analysis for explaining perceptual processes. As Gibson (1979/1986: 8) stated:

Animal and environment make an inseparable pair. Each term implies the other. No animal could exist without an environment surrounding it. Equally, although not so obvious, an environment implies an animal (or at least an organism) to be surrounded.

In order to account for the nature of affordances (see Chapter 5), we first have to understand how the O-E systems are understood. This coalition or synergy of the agent and its environment is defined as a proper unit of analysis because of the mutual reciprocity and necessity of both elements for the happening of perceptual processes. Thus, describing the processes of just one of the two elements of the system in isolation does not suffice for understanding the richness of perception.

The proper question now is how to justify the assumption that, for understanding perception, we must understand that organisms and their environments conform a system.

To do so, it is necessary to clarify how those two elements are *engaged* and how their interaction makes this new level of explanation possible. The main point is that this engagement relies on a biosemiotic or informational relation, something that is defined as the *ecological scale*. This information emerges from the interaction of agents and their environments. Taking what ecological psychologists call ‘the intrinsic exploratory attitude of the agent’³, it is possible to detect specific information related to the agent that would not be detected otherwise. In turn, this new information is information-for-action: it helps to modulate the agent’s behaviour, enabling the agent to act upon the surrounding environment. Given its active character, this agent-environment interaction can be understood through a dynamical, looping process. In conclusion, the active character of agents establishes a new informational level or scale that enables us to understand this interaction between agents and their environments as something that constitutes a new system or level of explanation. O-E systems, then, work at the ecological scale. Once we have made these steps explicit, we can understand what affordances are.

3.2 Main features

3.2.1 Against cognitivism and behaviourism

Ecological psychology can be understood within the history of psychology as a reaction against cognitivism and behaviourism. Cognitivism (in the cognitive sciences) is the view in which cognition is understood as the sub-personal processing of representations, in abstraction from bodily mechanisms and motor control (Wilson and Foglia 2011). Behaviourism is still mainly viewed as a theory according to which a complete explanation of behaviour exhausts cognition, in the sense that there should always be some form of behavioural evidence for every psychological

³This ‘intrinsic’ exploratory character does not refer to metaphysical intrinsicness as it is depicted in section 4.2. By the ‘intrinsic exploratory character’ of agents, ecological psychologists mean that agents possess certain exploratory character in a natural way. This idea is discussed in a more detailed way in 3.2.3

aspect that we postulate (Graham 2000/2015). Traditionally, radical versions of behaviourism rejected an explanation of cognition based on sub-personal processing of representations, claiming that a third-personal explanation of the stimulus-response behaviour is sufficient for explaining cognition. For these reasons, cognitivism and behaviourism have been considered as opponents, but this has not always been the case. In fact, they may be considered as complementary aspects of the same model for explaining cognition: while cognitivism is focused on the internal processing of representations, behaviourism aims to explain how we are able to perceive the stimuli and to give a response. Thus, behaviourism would be able to explain the origins of the processed information as postulated by the cognitivist approach. Behaviourism and cognitivism would be, then, two phases of the complete process of cognition, but with the internal processing remaining as the key feature of cognition, because that step is the one that turns stimulus into knowledge. Hence, the so-called ‘cognitive revolution’ did not overcome behaviourism challenging its principles; rather, cognitivism adapted the behaviourist principles for its own benefit (Reed 1991: 174-5).

Cognitivism, both in its computationalist and in its connectionist manifestations, is inspired by the computer metaphor (see 1.1). Computationalism states that sub-personal processing of representations is achieved through algorithmic computation on symbolic representations (Horst 2003/2009) and connectionism claims that the sub-personal processing of representations is better understood taking biologically inspired neural networks as a model (Garson 1997/2015). Although defenders of computationalism and of connectionism have argued against each other for years, they share this already-mentioned basic way of understanding the architecture of cognition. In conclusion, one of the theories that fully opposed both behaviourism and cognitivism has been ecological psychology.

Historically speaking, the basis of ecological psychology has its origin in two claims that are intertwined: First, perception and action are two sides of the same process; second, perceiving is something completely different from sensing.

Both claims guided Gibson’s main works: *The senses considered as perceptual systems* (1966) and *The ecological approach to visual perception* (1979). The main idea of Gibson’s approach is that perception and action are a continuous, looping process that emerges from the active interaction with the environment and also that this interaction is explained within a biosemiotic approach.

3.2.2 Perceiving is not sensing

Gibson's starting point is the following: perception is a matter of information, objective information that we can find available to be perceived in the environment, and that is necessary and sufficient to guide our behaviour. Sensations, on the other hand, are not constituted by ecological information. Hence they are not relevant to explain perception, action and the role of behaviour, understood as a process attributed to the agent as a whole. Senses are different from perceptual systems. As Gibson (Reed and Jones 1982: 275) claimed:

The channels for sense impressions in animals and men are distinguished from what are called perceptual systems. The former consist of bundles of nerve fibers connecting passive receptors with corresponding points in the brain, and they are supposed to be mutually exclusive. The latter consist of both incoming fibers from organs containing receptors and outgoing fibers back to these organs and they are not supposed to be mutually exclusive but to overlap one another. The sensory nerves are supposed to deliver distinct signals to the brain that elicit correspondingly distinct qualities of experience in this theater of consciousness. The perceptual systems are assumed to make orienting and exploratory adjustments of the perceptual organs and to resonate in a particular way when a distinct kind of information is picked up.

Sensations have been traditionally understood as different kinds of signals that are processed, within a cognitivist point of view, from sensory receptors to certain areas of the brain. 'Processed' means that certain stimulus of certain kind (vibration, temperature, light, etc.) stimulates specific receptors that receive that information (thermoreceptors, photoreceptors, etc.) and then the receptors transmit this afference or stimulation to other neurons in a chemical and electrical way. This signal goes from neuron to neuron, as if they were different steps or nodes in a chain, until the specific area of their brain receives that special kind of information⁴. This is, then, a sub-personal explanation of how perception works. The same explanation goes for action: certain area of the brain sends a 'command' to the (efferent) neurons that are located in the specific areas that exert the actions (limbs,

⁴For a further depiction of this cognitivist view, see Kandel, Schwartz and Jessell (2000).

etc.). Thus, perception and action are two discontinuous, independent processes that are separated by a bunch of nervous interconnections in the brain that distribute those electric and chemical patterns in a mechanical, piecemeal way. This explanation of perception and action as sub-personal processes has been known, traditionally, as the ‘computer metaphor’ or, in a critical way, as ‘the sandwich of cognition’ (Hurley 1998): cognition is a phenomenon that is restricted to the (electrical and chemical) activity of the brain or of the central nervous system. Taking this, the function of the peripheral nervous system (the areas of our nervous system that are responsible of our perceiving and acting) is receiving and responding to external stimuli. This computer metaphor was also useful for the classic computationalist approach. The main idea shared by computationalism and connectionism, despite the latter’s neurobiologically inspired approach, is that cognition is a matter of internal, sub-personal processing (according to certain rules) of the (passively acquired) deliverances of the senses. By embracing this computer metaphor, both approaches are committed to cognitivism and intellectualism⁵. To sum up the similarities between both approaches in Gibson’s (1976: 37) words:

The only kind of perceptual activity that my critics are willing to admit is *mental activity*. That is, the operations of the mind upon the deliverances of the senses. (You can substitute the operations of the brain upon the inputs of the sensory nerves if you like, but that will come to the same thing).

But the ecological or Gibsonian approach to perception and action is quite different: it is not sub-personal but personal; it is not discontinuous, but continuous; it is not mechanical, but dynamic; it is not sensualistic, but ecologically informational. In this sense, many philosophers share Gibson’s emphasis on the agential perspective. For example, McDowell (1998: 354-356) recalls Gibson’s (1966) emphasis on the agential perspective as a support for his agential views on perceptual

⁵Intellectualism in the philosophy of mind is, according to Ryle, the idea that every mental activity, even a practical activity, “merit[s] the application of “intelligence concepts” in virtue of being accompanied by “internal acts of considering propositions” (Snowdon 2011). In the cognitive sciences, intellectualism could be defined as the idea that, if something is considered as a genuine cognitive process, it is then the product of internal processing or computation of representations according to certain general rules. This definition of intellectualism is similar to that of cognitivism in the cognitive sciences. Thus, any approach that rejects some or all of of these features is an anti-intellectualist one. According to some authors (Fantl 2013), Ryle (1949/2009; 1946/1971) is an example of radical anti-intellectualism.

content. This distinction between personal and sub-personal states can be also extended to non-rational animals and artificial agents (Pinedo and Noble 2008).

3.2.3 Perception is continuous with action

The main idea is that, contrary to what has been established by the computer metaphor in the neurosciences (in particular) and the cognitive sciences (in general), the ecological approach to perception and action claims that perception is not passive (Gibson 1976); on the contrary, it is continuous with action⁶. This is so because the starting point is not the passive, cognitivist approach that focuses on what happens in the sub-personal levels: if we focus on the sub-personal states for explaining vision, for example, what we have is that light comes to the retina (that external physical energies affect our receptors). But if we focus on the personal, on what the *agent* perceives rather than on what parts of the agent receive certain *stimuli*, the mechanical, passive, sensualistic and cognitivist approach ceases to be useful. The idea of the ‘ecological’ within ecological psychology is that this theory must offer a depiction of how *whole* agents *naturally* behave. And it is well known by ethology and evolutionary biology (Reed 1996) that animals are primarily active: we move, act, and seek in order to discover and encounter our environment. So one of the main assumptions is that we are not passive beings, we are active. The main idea that comes from this is that this action leads to new ways of encountering the environment that are different from the ones that result from emphasizing passivity. Gibson’s discovery is that if we take the active agent as whole (moving and acting upon the environment in a coherent and coordinated way) as the beginning of our analysis, there is a special kind of information that agents find in the environment that is present solely when agents act. This information was named ‘ecological’, partly because this information was not found at any other level of explanation or in any other situation besides that in which agents explore the environment. For this reason, this new level or scale was called ‘the ecological scale’, which is the scale that appears when agents actively interact with their environments under the right conditions. And this ecological information, when we perceive it, is something necessary and sufficient to modulate or adjust

⁶Gibson was not the first author who claimed that perception and action were two sides of the same process. In philosophy we can find this claim (or at least something very similar) in authors as ancient and diverse as Augustine (Silva 2014), Avicenna (Kaukua 2014), Aquinas (Freeman 2001), Condillac (1754), Berkeley (Paukkonen 2014), Dewey (1896), etc.

our behaviour (Chemero 2009, Fodor and Phylyshyn 1980, Turvey et al. 1981).

This also highlights the difference between behaviourism and ecological psychology. In fact, the discovery of ecological information and the ecological scale by Gibson led him to reject behaviourism because it could not offer a specific analysis of which elements of the environment are the objects of perception. As Reed (1991: 175-6) puts it:

The *exploratory* behaviour involved in perception would seem to be of an entirely different order from the *performatory* responses studied by behaviorists (SCAPS, Ch. 2). [Also], there is the vexed problem of what should count as a stimulus. Behaviorists tended to be glib about this, referring to objects and other animals as stimuli just as readily as they referred to physical energies as stimuli (J. J. Gibson, 1982, Ch. 4.3). Gibson's (1982, Ch. 1.4) discovery that complex energy patterns counted as *information* for perception, combined with his critique of the stimulus concept, and his novel idea of exploratory action, led to his complete rejection of S-R psychology (Reed, 1986a, 1988a).

3.2.4 Ecological information

Ecological information must be understood as an agential alternative to the sub-personal-processing approach of the theories based on the computer metaphor. Gibson argued that perception is informational, direct and noncomputational. But his use of 'informational', unlike, *e.g.*, Dretske's (1988), did not imply 'based on Shannon's approach'⁷. The term 'information' is quite different for Gibson, and it can be illustrated with this example, offered by Chemero (2009: 107-8, emphasis added), in which he depicts how people watch a room within a normal environment and a room within a foggy environment:

The differences between the normal environment and the fog-filled room

⁷"The information for perception, unhappily, cannot be defined and measured as Claude Shannon's information can be" (Gibson 1979: 243). Shannon's notion of information involves a message, a channel and a special kind of coding. It works in purely physical terms, and it is representational. There have been several applications of Shannon's view on information, from physics to electronic engineering or telecommunication systems.

are instructive. In the fog-filled room, the light that converges on any point that could be occupied by an observer's head and eyes has been scattered by the fog. Thus, when it reaches the observer it has not come directly from any surface in the room, and *hence cannot inform the subject about the surfaces in the room*. In the more typical, non-foggy situation, the light that reaches any point in the room has been reflected off the room's surfaces. The chemical makeup, texture, and overall shape of the surfaces off which the light reflects determine the characteristics of the light. Since surfaces are interfaces of substances with the air in the room, the nature of the surfaces is, in turn, determined by the substances that make them up. This set of facts is what allows the light that converges at any point *to carry information about the substances in the environment*. (...) The information in the light just is this relation between the light and the environment. A few quick points about this. First, note that information relation between the light and the surfaces does not hold in the case of a fog-filled room. So the light in this case bears no information about layout of the environment. Second, it is worth noting that this way of understanding information allows it to be ubiquitous in the environment. Light reflected from surfaces in the environment converges at every point in the environment. Third, the information in the environment is more or less complete: the light converging at every point has reflected off all of the nonobstructed surfaces. Fourth, and most important for Gibson's project, is that the light can contain information that specifies affordances. To see this, a little needs to be said about affordances.

This information is not just the physical structure of the light, because light itself in a foggy room is not informational in an ecological sense. For such ecological information to appear, it has to reflect in the room's surfaces and be available to the agent. This is why Chemero claims that ecological information only appears when light impacts in the surfaces under normal conditions, *because it is only under those conditions that light carries information about the environment*. This information appears in the environment because light *impacts* on surfaces, but it is also such information because it is *valuable* or *meaningful* (not in a semantic, but in a biosemiotic sense, as we have seen in 3.1) to agents for adapting and adjusting their behaviour. Thus, the informational character of light is not identical with its

physical structure; it has to be understood at a different level or scale, the *ecological scale*, because it is understood as an element of the environment that is meaningful to animals. This meaningful character of ecological information is something like the glue that joins agents with their environments. As Michaels and Carello (1981: 38) put it: Information is the bridge between an animal and its environment and cannot be usefully described without an specification of *both*". Also, this means that perception is *veridical*, but not in a sense in which this information is related to truth-conditions. 'Veridical' in the ecological jargon means that "perception is specific to the environmental properties that are perceived, which is to say that it is related one-to-one to those properties" (Jacobs and Michaels 2002: 129). This special kind of information takes the agent-environment relation as a basis and as a unity, becoming the starting point for explaining perception. Ecological information is the key for this specificity and, hence, for establishing a bridge between agent and environment in order to take them as the basic unit of analysis. This basic unit of analysis is the interaction between organisms and their environment, which is known as the *agent-environment (O-E) system*. Also, this informational interaction constitutes a new level of explanation suitable for understanding the perceptual and active behaviour of agents. Ecological psychologists call this level of explanation the *ecological scale*.

3.2.5 Invariants and perceptual constancy

Among the most relevant informational elements that we can find at an ecological scale there are perceptual invariants, the ones that allow for perceptual constancy. Michaels and Carello (1981: 40) define perceptual invariants as follows:

From a psychological point of view, invariants are those higher-order patterns of stimulation that underlie perceptual constancies or, more generally, the persistent properties of the environment that an animal is said to know. (...) [I]nvariants come from the lawful relations between objects, places and events in the environment (part of which is other animals) and the structure or manner of change of patterns of light, sound, skin deformation, joint configuration and so on. (...) Invariants structures in light and sound not only specify objects, places and events in the environment but also the activities of the organism (*e.g.*,

speed and direction of locomotion by the optical transformations at the eyes). Thus, invariants are, by virtue of the laws that support them, information about the environment and an animal's relation to it.

Perceptual constancy “labels phenomena in which perceived properties of objects remain the same even though there is significant change in the proximal stimulus” (Michaels and Carello 1981: 20). These informational invariants make the informational space of the surroundings of the animals remain stable, and this allows them to explore the environment in an easier way. This is why there are aspects that remain constant, even when agents explore by moving their heads or their bodies and induce transformations in the optic space. As they claim (Michaels and Carello 1981: 20-1):

How is one to explain these constancies? (...) The ecological approach (...) seeks a basis for perceptual constancies not in corrective mechanisms of the perceiver but in properties of the stimulation whose own constancy or invariance accompanies the persistent properties of objects (*e.g.*, size).

We have seen how these properties, in the case of vision, appear thanks to our action and are hence meaningful to us (Chemero 2009: 107-8). Due to these properties, there is perceptual constancy and there is the possibility for agents to keep exploring. These invariants are the properties that appear at an ecological scale, the level of analysis in which we are able to understand the relation between agents and their environments in terms of information and perception-action. The existence of this ecological scale, full of these ecological informational properties, is the main level of explanation in order to understand behaviour from a natural perspective. The perception of these properties is the key for explaining how we are able to adjust our behaviour and adapt to our environments.

3.2.6 Ecological information and the modulation of behaviour

We are able to adapt to our environments in action if we pay attention solely to this special kind of information. In this sense, the demarcation between perception

and sensation is clear: perception is a matter of being receptive to this special kind of information of the environment that appears when agents act and that is sufficient to modulate and guide our actions. Sensations are something that one agent can feel independently of being in this state; they are not useful for guiding our behaviour at the *ecological scale* (Gibson 1966, 1979). If the ecological scale is the scale that results when agents naturally explore their environment, and if it is based on certain informational patterns that guide our behaviour, sensations are not informationally relevant in an ecological sense, so they cannot by themselves play the role of adjusting our behaviour to the ecological changes of the environment. This is the sense in which Gibson (1966) claimed that sensations are not informative, they are just feelings that go along with information, but they are not the key point for explaining how we naturally perceive. This is how we see that action and perception are two parts of the same continuous process, and also why sensing is different from perceiving. As Warren (2006: 261) claims:

This view [the ecological approach] emphasizes the role of occurrent information in guiding behavior, in the form of optic, acoustic, haptic or olfactory fields that are structured by and are specific to the state of the agent-environment system. (...) Information is viewed as regulating action directly, in a task-specific manner, rather than contributing to a general-purpose world model for the planning of action.

In sum, ecological psychologists claim that perception is a matter of detecting information that allows us to guide our behaviour. In ecological psychology, the mere detection of the specific information for doing certain actions is explained without the need to postulate any kind of inner computational processing or what Chemero (2009) calls ‘mental gymnastics’. Behaviour is not explained by appealing to those inner processes; rather, the interaction between agents and their environments in informational terms is sufficient for explaining behaviour. This is why this way of perceiving has been called *direct perception* (Michaels and Carello 1981). This direct perception of affordances thanks to informational elements at the ecological scale gives rise to the idea of a *niche*. As Gibson (1979/ 2015: 120) puts it: “[A niche] is not quite the same as the *habitat* of the species; a niche refers more to how an animal lives than to where it lives. I suggest that a niche is a set of affordances”. Thus, this is another example of why the ecological scale is not

merely the physical scale: what we perceive is something related to us in the sense that it affords something to us, and we live perceiving and taking advantage of the opportunities for action in our environment. Ecological psychology shows us how we live and modulate our behaviours thanks to the ecological scale.

3.2.7 Example 1: Optic flow

Let's look at an example before moving any further. One classic example in ecological literature for understanding the perception-action dynamical relation between agents and their environments is vision, particularly the idea of *optic flow* (Gibson 1979, Koenderik 1986, Chemero 2009). Optic flow is based on the idea that there is a rich source of (ecological) information in the visual field due to the egomotion or to the transportation of objects in the environment. In Chemero's (2009: 123) terms, optic flow is based on "the patterns of motion available at the eyes of any moving observer". This idea was initially proposed (in non-ecological terms) by Helmholtz (1910) and Mach (1879/1959), but the modern developments started with Gibson (1950, 1979) (Koenderik 1986: 191). Optic flow is basic for understanding visual perception linked to action (Chemero 2009: 124):

As any animal moves about its environment, the images of objects or texture elements that the animal is moving toward will expand at the animal's eyes. This is often described by saying that optic flow is centrifugal in the direction of locomotion: texture elements radiate out from the center of your field of view as you move toward an object.

This visual field that is centrifugal in the direction of locomotion can be illustrated as in Figure 3.1: There are several kinds of information available in the optic flow: proprioceptive information about ego-motion, information able to sustain egocentric orientation and localization, information concerning the segmentation of the visual field into coherent entities, exteroceptive information concerning the spatial structure of the surroundings, etc. (Koenderik 1986: 170). Thus, optic flow is one of the basic notions that count in favor of a tight relation between action and perception and also between agent and environment. All these kinds of information serve as a guidance to adjust behaviour.

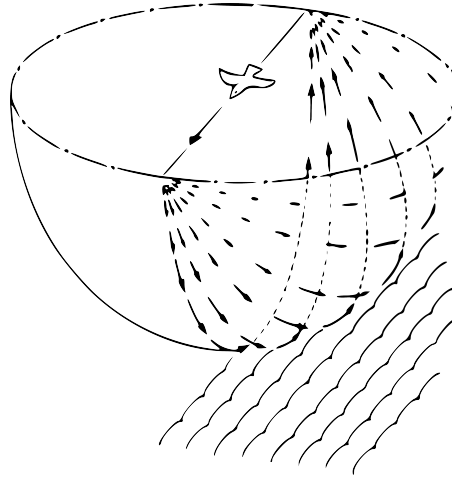


Figure 3.1: An illustration of the optic flow in Gibson, 1979.

The advantages of analyzing the phenomenon of the optic flow are, at least, twofold: first, there is no need to postulate any kind of internal computational processing of mental representations (what Chemero calls ‘mental gymnastics’) because the pick-up of external information is necessary and sufficient for adjusting behaviour; second, it explains in a more natural way how animals can adjust their behaviour without the necessity of appealing to internal computation.

A good example of the kind of information that we are able to detect in the optic flow is the variable τ , the one that specifies time-to-contact. Time-to-contact or time-to-collision is the temporal proximity to a stationary (or slowly moving) object or to an image plane from an egocentric perspective (Lee 1976). One example of how important is this kind of information and how it is used to adjust behaviour in natural environments without using mental gymnastics is that of the behaviour of gannets, as Lee and Reddish (1981) show. They demonstrated that there are properties of the centrifugal optic flow that are sufficient to guide behavior by defining the higher-order optical variable t^* . This time-to-contact variable could be defined as the ratio of the size of a projected image to the rate of the change of the image’s size (Chemero 2009: 124-5). As we can observe in Figure 3.2, there is a decreasing distance between a particular object in the world and the eye of an animal, and the distance changes at a constant velocity V . At time t , the object is at distance $z(t)$, and the object projects an image of a size $r(y)$ which is proportional to its size R . As the distance between R and the animal decreases, the size of the already-mentioned projected image decreases

at the already-mentioned velocity. So if V is constant, τ is equal to the time remaining until contact with the object, hence its name (time-to-contact). These tools were used by Lee and Reddish to explain how gannets are able to fish and adjust their behaviours for fishing taking the τ or time-to-contact variable as a source of information. Chemero (2009: 125) emphasizes in with great clarity why

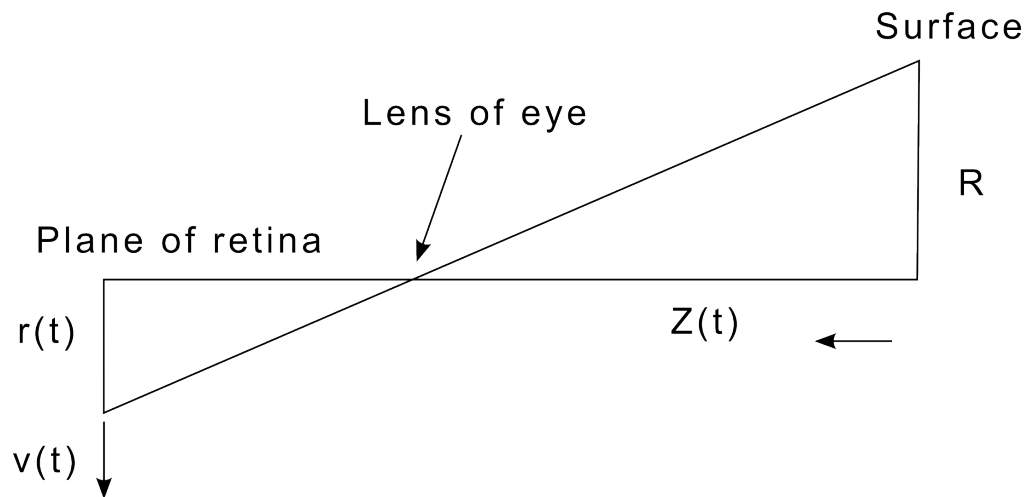


Figure 3.2: An illustration of what is needed to perceive a variable τ , from Chemero (2009:124).

this information is exclusively ecological:

There are several things here worth noting. First note that $t[au]$ does not give information about the absolute distance of an object. Instead, it gives information about time-to-contact with the object, which is relevant to guiding movement. When you're trying to cross the street, how far away in meters an approaching car is matters much less than how soon it will hit you. Second, note that $t[au]$ need not be computed by the gannet. It is available at the retina. $[Tau]$, in other words, can be perceived directly. So, $t[au]$ provides important information for the control of action in the environment, and it provides that information without requiring mental gymnastics. That is, sensitivity to the ratio of optical angle to the expansion of optical angle is sensitivity to the timing of approaching collision. Third, and most important, Lee and Reddish (1981) show that diving gannets are sensitive to $t[au]$ and use it to determine when to fold their wings. They filmed diving gannets and showed that the time of wing retraction is better predicted by the

hypothesis that gannets pick up information using $t[au]$ than by the hypotheses that gannets compute time-to-contact or retract wings at some particular height or velocity. Finally, there is evidence that $t[au]$ and $t[au]$ -derived variables are used to undertake a variety of visually guided actions.

In Lee and Reddish's (1981) example, tau (the variable specific for time-to-contact) is understood as a variable that specifies the time for contacting certain surface while agents move. This shows that certain animals use these external, meaningful ecological variables in order to adjust their behaviour without the need to appeal to what Chemero calls complex mental gymnastics. Not appealing to internal processing and the dependence on the action of the agent are two key points by which the ecological approach is preferred over sensualistic and representational cognitivist approaches.

As we have seen, one of the advantages of adopting the ecological approach to perception and action is that we can understand how ecological information can help us to adapt and adjust our behaviour without appealing to mental gymnastics or computations. Optic flow is a classic example of this ecological phenomenon at its proper scale, but it is not the only one. The sense of touch, for example, is understood as a process that is dynamical and related to action; this is why it is called 'dynamic touch' in the ecological literature (Turvey 1992). But before presenting more examples, let's analyze more deeply how this whole new informational and agential scale appears. For this purpose let me reconstruct in a temporal succession how this ecological scale emerges in the action-perception dynamical loop.

3.2.8 The action-perception loop

First, let me start by explaining how the combination of action and the environment produces ecological information, which has a very particular nature. The active and agential character of perception is underlined within the ecological framework, and this is the basis to understand the emergence of O-E systems. Perception is often seen as a passive process (the world stimulates bodies and they receive information from it). By contrast, ecological psychology assumes that perception starts with action. Thus, action and perception are two sides of the same looping

process. For ecological psychologists, agents are organisms that are able to control or coordinate their own actions in order to perceive their environments (Gibson 1994). When an agent walks, the visual field starts to move with the agent, who can detect new elements, such as expansions, contractions, edges, surfaces, and time-to-contact with the centre of the agent's image. Thus, the movement of the agent in combination with the light of the environment produces a new scenario (an optic flow) that specifies new information that was absent before acting (like expansions and invariants like time-to-contact) (Gibson 1979/2015). This is how the action of the agent plus the light of the environment produces information that is related to the agent (in this case, visual information related to the position of the agent in motion). We can call this information, given its relational character, *ecological* information. It is exclusive of the agent-environment interaction, like in the optic flow or in the illuminated room examples.

The second step is detection. As we have seen before, once the agent acts, the information of the environment is available due to the agent's movements. When an agent exploring and moving detects an information that is stable under a transformation, that information results *meaningful* to her. And here comes the main ecological idea: the perception of the ecological, agent-related or meaningful information is called 'detection' because that information is not internally processed, but picked up from the external environment. The information shows what the environment affords, allowing the agent to adapt and adjust its behaviour to those external circumstances. For example, when we detect time-to-contact, this detection of the variable is sufficient to make us adjust our behaviour; that 'contactability' is perceived and, as a result, the agent acts to avoid the impact. This is why ecological information is sufficient for guiding behaviour: contrary to cognitivism, there is no need to appeal to internal processing of data in order to process information and send a command in response to the information that is already perceived. Agents just move, and their movement plus the elements of the environment specify certain properties (invariants and variables) that, once the agents detect them, they are able to modulate and adapt their behaviour. From this agential perspective, the ecological scale provides what it is sufficient and necessary in order to make sense of the modulations of agents' behaviours. The new information (surfaces, edges, time-to-contact, etc.) that has results from the agent-environment interaction is already full of meaning because it is *specific* to the agent —that is, it comes *from* the agent and it is *for* the agent. Also, it is located not internally, but in the ex-

ternal environment (outside the agent). That information specifies the possibilities that the agent can take advantage of in order to act. If the agent detects a surface, the possibility arises that the surface can be used for climbing. Thus, agents are responsive to certain information of the environment that in turn demands certain actions. Now we have a scenario in which an agent is an organism that, actively exploring its environment, detects a special kind of information (information related to the agent that also allows certain things to be done). And this relational character of information establishes the ecological scale of perception, which is explained dynamically through a looping process. At this time, the notion of *invariant* (Gibson 1979) is key: they are the ecologically informational patterns that remain stable even when agents change their behaviour due to their exploratory character. The time-to-contact mentioned before is an example of these invariants: even when we change the angle of vision, the time-to-contact remains constant or invariant to the changes of our actions and of the environment, being something that the agent is able to detect in order to modulate and guide its action. These invariants are some of the key elements that are necessary and sufficient to guide our behaviour at the ecological scale.

Something that should be clear is that, even if I have distinguished different steps within the dynamical loop between the active-perceptual capacities of agents and different features of their environments, those steps are not discreet per se, because this looping process is ongoing and extended through time and space. Thus, the separation of these three different steps is merely explanatory, while the process itself should be taken as a unity and as a basis for ecological psychologists and cognitive scientists. Within this view, the relation between perception and action is often presented as a Moebius band, as shown in Figure 3.3 (taken from Turvey 2004):

3.2.9 Ecological psychology and dynamics

Ecological psychologists analyze the action-perception loop and the behaviour of agents within their environments from a dynamical standpoint. The main reason, as we have seen, is that the action – perception interaction of an agent with its environment is a process that is online, ongoing and spatiotemporally extended, hence *changing over time* –which is the very meaning of ‘dynamical’. Thus, the

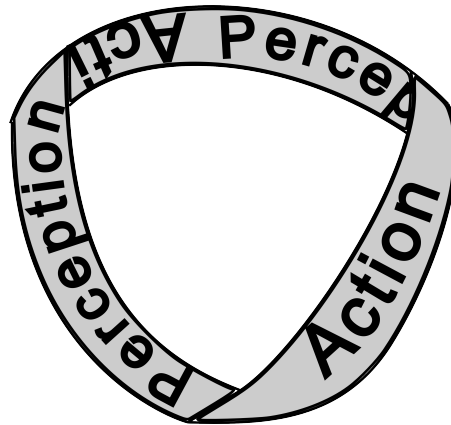


Figure 3.3: An illustration of the continuous relation between perception and action (Turvey 2004).

scientific study of a dynamical system is based on the understanding, modelling and predicting the ways in which behaviour of that system changes over time (Richardson and Chemero 2014: 39, Thelen and Smith 1994, van Gelder 1995).

According to Richardson and Chemero (2014), dynamical systems exhibit three key aspects: they can be homogeneous or heterogeneous, they exhibit emergent behaviour, and this behaviour is self-organized. In the case of ecological psychology, the action - perception loop is explained as a dynamical system in which the organism - environment shows itself as the basic unit of analysis because of the three key aspects previously depicted. First, it is a heterogeneous system: while homogeneous systems are those formed by elements of the same kind (for example, cortical areas of the brain), dynamical systems are constituted by organisms and their environments. Second, this organism - environment unit exhibits emergent behaviour inasmuch as this very interaction produces certain behavioural patterns that we cannot find either in the organism or in the environment taken in isolation. This is tightly related to the self-organized character of dynamical systems: in the organism - environment system there is no central controller that guides the new emergent behavioural pattern. Thus, organism and environment establish a coalition in which no element guides the mutual dynamical interactions between them, and this results in a complex behavioural pattern that emerges as a new level of analysis. The interactions cannot be anticipated just by analyzing the elements separately: it is their interaction what constitutes a new level of analysis with new features to be studied.

In addition to this analysis from an agential perspective of the organism and the environment, ecological psychologists and ecologically inspired neuroscientists (especially Freeman 2001) analyze Gibson's (1979) concept of 'resonance' from a neurodynamical perspective. According to ecological psychology, from an agential perspective, agents perceive ecological information. But from a sub-personal perspective, once agents perceive that information, their nervous systems resonate to that information (Michaels and Carello 1981: 63-5). This resonance is explained analyzing the dynamic patterns of interaction of the nervous system. Thus, both from a personal and from a sub-personal approach, dynamics are the main mathematical tool for understanding ecological psychology.

In conclusion, the ecological approach centers on the dynamical system that is the organism – environment coalition in which new patterns of behaviour emerge. This interaction between agent and environment, as we have seen, is based on information: due to the existence of ecological information, which is the information that emerges when agents interact with their environments, we can make sense of the organism – environment coalition as a dynamical system. But something more needs to be said about ecological information and direct perception.

3.2.10 Specificity and Shaw's Principle of Symmetry

The key concept that explains the direct perception of ecological information is specificity (Turvey et al. 1981, Reed 1990), which in turn depends on Shaw's principle of symmetry (Turvey et al. 1981). Both concepts are tightly related to the biosemiotic approach of ecological psychology. As seen before, the physical patterns of light become ecologically relevant informational patterns to the action of agents in the environment when they get affected by their contact with the objects of the environment: when we act upon the environment, we are able to perceive aspects of the environment that were not perceivable when there were no active agents performing any action or movement (one of the elements was this time-to-contact invariant, for example). As we have seen, there is an action-perception loop that starts when the agent acts, and that action combined with some energy pattern shows certain aspect that were not perceivable when the agent was not acting; in turn, that informational element supposes a new detectable information for the agent that, once perceived, makes the agent adapt its behaviour to respond

to it. This is explained by Shaw's principle of symmetry: the environment specifies (uniquely corresponds to) certain information that specifies certain action for the agent: "[T]he environment specifies the information, which specifies perception, and perception specifies the information, which specifies the environment. This principle is symmetrical in that the environment, information, and perception determine one another." (Chemero 2009: 111). Once the agent responds to that information, the environment gets affected by that action and shows certain other aspect, and so on. This symmetry goes in a causal way from agent to the environment and vice versa. This regularity establishes a nomological, lawful relation between the information of the environment and what we perceive. The existence of our objects of perception is dependent on the existence of certain informational aspects of the environment and, in turn, certain environmental aspects specify / uniquely correspond to certain objects to be perceived. If there is no information, there is no object of perception to be perceived. Specificity is, then, a key aspect that sustains both the epistemology and ontology of ecological psychology. As Gibson (1966: 162) himself claimed, invariants, through specificity, are the properties that allow for a new defence of realism in epistemology and a new theory of perception in psychology.

This unique correspondence or specificity is something that emphasizes the lawful aspect of perception. As Richardson et al. (2008: 177) put it:

The term specification is used to characterize the relation between certain patterns in the distributions of energy surrounding an organism and those properties to which they bear a 1:1 correspondence. Likewise, the term information is reserved for those patterns that uniquely specify properties of the world.

This aspect was enounced by Gibson and systematized and developed by (what has been known as) the School of Connecticut (Turvey et al. 1981, Michaels and Carello 1981), which aimed to equate the nomological character of perception with the nomological character of other scientific phenomena, as if they were similar to physical or biological laws⁸. The idea of finding the "laws of perception", that would

⁸Historically speaking, the School of Connecticut combined the ecological approach with the mathematical developments of the dynamical systems theory in order to show in a more detailed experimental way all the insights of the early Gibsonian ecological psychology.

possess a similar nomological character to the ones of the physical sciences, is not only an idea of the ecologically oriented psychologists, but also of Gibson himself (Reed and Jones 1982: 217, from an original unpublished manuscript written in August, 1979).

3.2.11 Example 2: Dynamic Touch

Other example that is typical of the ecological approach, besides vision, is touch or haptics, which is called dynamic touch (Gibson 1966, Solomon and Turvey 1988, Turvey 1992). The example of touch is quite revealing for understanding the action-perception loop or the idea that we can detect information through action that is not available from a merely passive contact. As it is commonly accepted, touch is purely based on contact: we have a lot of receptors in the skin that are affected by multiple sources of information such as heat, texture, vibration, etc. And, given this, we are able to perceive different aspects of the world inasmuch as this information is in direct contact with our skin: it is a proximal rather than a distal sense (contrary to vision, for example). If we wanted to estimate the length of a rod solely by means of our sense of touch, we could be able to do it by exploring the *whole surface* of the rod with our hands or by touching the two edges of the rod in a static way; according to this traditional way of understanding touch, there wouldn't be another way to estimate the length of something with our sense of touch. But this claim changes when it is tested by the ecological approach: Solomon and Turvey (1988) proved that it is possible to estimate the length of a rod in a more accurate way, *different from how it has been traditionally explained*. They develop an experiment in which they showed that we are able to detect certain information by perceiving the rods in different conditions. Chemero (2009: 155) explains succinctly and very accurately their hypothesis and achievement in their experiment:

Subjects were seated, placed their arm on a table so that they could move only their wrist and hand, and asked to grab the end of a rod occluded by a curtain. They judged the rod's length by moving a visible object (a block of wood on wheels) to the distance of the rod's length with their other hand. Subjects were quite good at this task, but what information were they using? Length per se cannot be perceived by dy-

dynamic touch, because length cannot affect mechanoreceptors. Solomon and Turvey showed that the length of rods is perceived by sensitivity to their rotational inertia, their resistance to turning about the wrist.

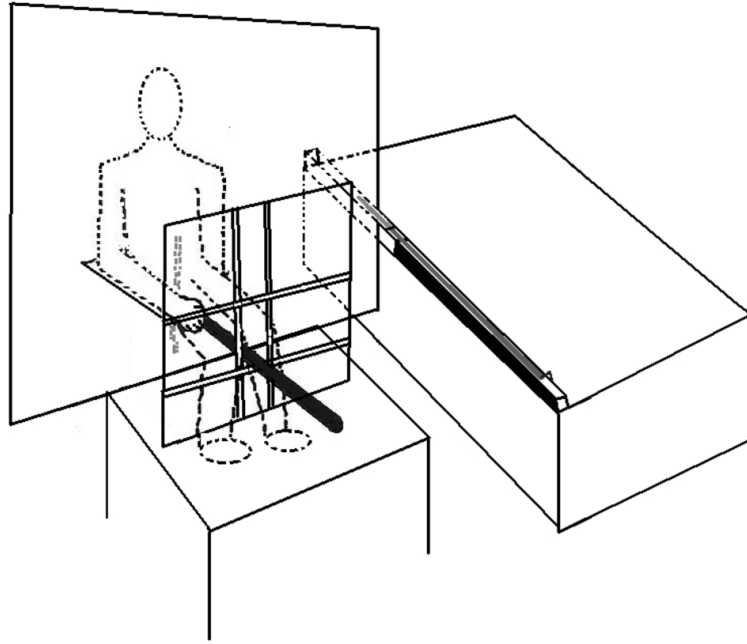


Figure 3.4: An illustration of the setting from the experimenter's point of view, taken from Lobo and Travieso (2012: 57).

If we are blindfolded (see Figure 3.4) and we want to estimate the length of a rod without touching the whole surface, what we can do is just grasping one extreme of the rod and wielding it. The action of moving the rod arises some information that was not available in a mere passive way: we detect the moment of inertia relative to the rod. This invariant refers to the effort that one needs to make in order to control an object that is rotating, i.e., this is the rotational equivalent of the mass in the Newton's equation $F = m \cdot a$. The moment of inertia is specific to the rod's length but, obviously, for detecting this invariant we need to generate a rotation movement. In fact, if a person wields a rod extremely slowly, she will detect other invariants like the static moment instead of the moment of inertia, and the length's estimation will be poorer than during a free wielding (Lobo and Travieso 2012). This shows how the ecological approach to perception is useful not just for understanding how vision works, but also how touch and the rest of our senses work if we apply the ecological scale and the idea of the action-perception looping process.

3.2.12 Conclusion

After analyzing the main elements of the ecological approach to perception and, as examples, how vision and touch are understood within this view, we can summarize the main ideas of the dynamical interaction between agents and their environments. In summary, the steps of the looping process are the following: (1) the agent acts upon the environment; (2) some new information emerges and the agent is able to detect it; (3) by being aware of that information, the agent controls or coordinates its own actions in order to respond to that information (see Michaels, Zeinstra and Oudejans, 2001). These steps are the abstracted, separate pieces of a continuous and linear process that constitutes the action-perception loop based on two elements: the agent and the information of the environment. This loop is the dynamical explanation of certain level or scale that is useful for explaining some particular perceptual processes (the ones triggered by action). The ecological scale is the scale of perception in action, a scale in which the environment provides specific information as a whole so that the agent can adapt her behaviour to the demands of the surroundings. And the ecological scale, explained dynamically through a looping process, constitutes O-E systems, the basic unit of analysis within the ecological approach.

What agents perceive at the ecological scale are the opportunities for acting in a certain way, which are specified by the information available to them. For example, agents can perceive specific visual information for avoiding obstacles or reaching objects. These opportunities for action are the affordances of the environment (see 1.1 and Chapter 5), and they are the objects of perception for ecological psychology.

3.3 Philosophical antecedents and consequences of ecological psychology

The theoretical advances of ecological psychology with respect to behaviourism and cognitivism were motivated by certain pragmatist, anti-dualist philosophical ideas. Many authors (Heft 2001, Chemero 2009, etc.) have highlighted the importance of James' radical empiricism as an antecedent of Gibson's ecological approach. Here

I depict which aspects of James' approach can be useful to understand Gibson's ecological ideas and, then, in which sense both James and Gibson understand the realist commitment of both approaches.

3.3.1 James' radical empiricism and direct realism as a philosophical antecedent of ecological psychology

James' philosophical theory was called 'radical empiricism' because he understood that a proper theory of knowledge starts with the notion of 'experience'; furthermore, this concept should be understood and depicted in its very basic and primitive sense, as a sort of radix for all our cognitive abilities. Hence, the emphasis on experience makes this approach an empiricist one, and his project for explaining experience as a primitive for understanding cognition is what makes it 'radical'.

James' pragmatist approach was a reaction against the two main philosophical approaches at those times: idealism and (British) empiricism. James' main critique to both approaches was that they shared a common, problematic premise: the idea that there was a "block universe", a static universe separated from agents, be it made of one single block (in the case of idealism, as postulated by Royce and Hegel with the idea of 'the Absolute') or made of many unrelated things (in the case of empiricism, what is known as Humean distinctness⁹). In neither approach there is no room for a dynamic view of experience. This clashes with pragmatism's main intuition: the most basic experience of humans is not of abstract ideas or sensualistic impressions, but of a flux of changing and dynamic experiences by which we obtain knowledge (Heft 2001: 35):

Empiricism and idealism fail to recognize the orderliness of experience because they both fail to take relations in experience as real aspects of immediate experience itself. James's alternative to these views, radical empiricism, asserts that the relations providing the structure in our experience of the world are intrinsic to the experience.

James' relational approach to experience is a reaction to the static view of Modernity and its consequences: mainly, the gap between mind and world. James'

⁹The idea of Humean distinctness is analyzed in Chapter 4.2.

starting point is not the problem of how is it possible to perceive a world separated from us; rather, his starting point was to understand the basic interconnection between agents and their environments, taken as a whole and established by interconnected relations, that are dynamic, changing and ongoing.

But let's go back to the idea of a block universe, as James' discussed it. If the premise of a block universe is true and, hence, the perceiver must know the world in a discontinuous way, how is it possible for perceivers to access the world, be it made of an Absolute or of different only externally connected objects? Descartes postulated the idea of sense impressions as the modes in which we receive the impacts of the world in order to fill the gap between mind and world. Locke inherited this idea, and developed it until concluding that sense impressions were representations that work as an intermediary between the world and the agents (James 1912/1976: 27). These impressions or sensations would be passively acquired by the senses and delivered to the mind in order to either build more complex representations or to work with those impressions. This gave rise to the contemporary ideas of representation and *sense-datum*. Thus, experience would be pre-cognitive, and the properly cognitive processes would be the ones that happen in the inner space of minds. This Cartesian-Lockean view of the mind implies, according to the pragmatist diagnosis of Modernity, the origin of all epistemological problems and undesirable ontological consequences (see especially Rorty 1979): mainly, the postulation of an inner space of the mind which is reached via privileged access, and the knowledge of which is then infallible. This, in turn, implies more problems, such as how is it possible to attribute knowledge or any other kind of mental states to other agents if our mental states are exclusive and private, or how can we guarantee that we can find a foundation for our knowledge of the external world if senses are deceptive because *that* other knowledge is *not* infallible, etc. Also, related to these is the problem of truth: how can we know that what we think of the world is true if we deal with representational intermediaries rather than with things themselves? This is why, typically, representationalism goes along with a correspondence theory of truth: if the representation is true, this it is so because the structure of the representation corresponds to the structure of the state of affairs that it represents. Some authors, not considered to be part of the pragmatist tradition (mainly post-positivists analytic philosophers) shared this early pragmatist diagnosis of the problematic aspects of Modern epistemology and philosophy of mind (especially Ryle (1949) and Wittgenstein (1953)).

Contrary to the Cartesian-Lockean view, James claims that this veil or gap and its associated problems can simply be avoided if we properly understand that experience is continuous, not discontinuous. If we accept this continuity, there is no gap to fill. This implies that the very idea of an object of perception is completely different from this perspective. The continuous character of perception is grounded on two main features: first, it is direct; second, it is ongoing. First, if there is no gap between mind and world to fill with representational intermediaries, this means that perception is direct acquaintance with the outer: there is no mediation between the world and the perceiver. Also, perception is never passive; rather, it is ongoing: for every action we perform, for every movement, there is a new aspect to be known and a new perspective to capture.

But what does it mean that we perceive in this continuous way? James claims that what we perceive is a “quasi-chaos” (James 1912/1976: 32). This quasi-chaos is a manifold of possibilities of knowing (Heft 2001: 27) that is free from contradiction and that makes us discover different perspectives from the same structure of reality. The objects of perception in this continuous flux are what James called ‘percepts’, which are “singulars that change incessantly and never return exactly as they were before” (James 1912/ 1976: 253). They never return exactly as they were before because experience is continuous and ongoing in James’ picture.

How can these percepts get to be the objects of our experiential states if experience is continuous? This is because of what James called *selectivity*: by our acting, we are able to select or capture these singular, momentary aspects of the ongoing flux over time. It is important to show that, in his view, thinking and perceiving are not detached: just like perceiving is selecting parts of a flow of immediate experience, thinking is to fix the pieces of the flow in order to create concepts, which are “carved out of immediate perceptual experience at a remove from action and are abstracted from it” (Heft 2001: 40). This implies the continuity between perception and abstraction that enhances the cognitive potential of agents (James 1911/ 1979). Also, there is a coalescence of percepts and concepts (Heft 2001: 49), because if we can carve out concepts from percepts, our conceptual capacities improve our selectivity in experience: “[concepts] return and merge themselves again in the particulars of our present and future perception. By those whats we apperceive all our thises. Percepts and concepts interpenetrate and melt together, impregnate and fertilize each other” (James 1911/1979: 34).

This interdependence of percepts and concepts is one of the reasons for which James rejected the sensualistic approach to perception of Empiricism, also adopted by Rationalism and the XIXth Century Idealism. As James (1890/1981: 219) claimed:

Most books start with sensations and proceed synthetically, constructing each higher stage from the one below it. But this is abandoning the empirical method of investigation. No one ever had a simple sensation by itself. Consciousness, from our natal day, is of a teeming multiplicity of objects and relations, and what we call simple sensations are results of discriminative attention, pushed often to a very high degree.

Sensations are mere isolated, idealized constructs of our flux of ongoing experience. Rather, James' approach aims to go back to pure experience as a starting point for understanding our cognitive lives. This world of pure experience that is present to us is not the world of physics and sensations that is typical of the empiricist and the behaviourist approaches. The physicalist, empiricist approach separates the material world from the minds of the agents that perceive it. In the Jamesian approach, reality is the sum of all relations between the agent's action-perception processes and the flux of experiences that come from this interaction. There is not duality of world and mind in this pragmatist approach to experience; James' starting point is the experiential relation between both elements. By saying this he is not denying materialism, but only the physicalist and behaviourist approach to the explanation of experience, which reduces experience to physics. According to James, this view does not capture experience in a detailed way, with its main features and particularities. This means that reality can be described from a physicalist approach but also from an experiential approach: "In James's metaphysics, the aboriginal world of experience is not, then, composed of two entities, mater and mind; rather, it is an undifferentiated, latent multiplicity of "stuff" (Heft 2001: 28) in which agents and objects are interrelated. This is why some Jamesian scholars, mainly the New Realists (Holt et al. 1912) and Sprigge (1993), have pointed out that James' metaphysics could be considered as a form of neutral monism.

The ecological approach to perception and action shares a highly significant number of features with radical empiricism: (1) there is a clear distinction between

sensation and perception, (2) experience is continuous and ongoing, (3) radical empiricism and ecological psychology start with the interaction, and not the isolation, of agent and environment, (4) perception (Jamesian selectivity and Gibsonian detection) is direct, (5) both radical empiricism and ecological psychology react to the same approach, the Cartesian-Lockean view, of which the computer metaphor is its newest version.

3.3.2 A new version of realism

James concluded that the world, or reality, is “directly apprehended” (James 1909/1978: 173) in experience by our selectivity of percepts. Thus, radical empiricism implies direct realism, but ‘realism’ cannot be understood as the idea that we can know reality “as it is”, because “individuals can never know the world independently of their own experience” (Heft 2001: 74). In the Jamesian approach to realism, developed by the New Realists (Heft 2001, Holt et al. 1912), there is no distinction between the world as it is and the world as we perceive it or the world as we conceptualize it. In fact, the idea of a world “as it is” (a world that is independent of the perceiver) is an idealization of Modernity, which disentangled agents from their environments and postulated a gap between them. The only reasonable approach to realism is then to go beyond unfruitful distinctions between agents and environments and take their interrelation as a consistent whole and as a starting point. As Holt et al. (1912: 358-9) claimed: “(...) For the gist of realism is not to insist that everything is real, far from it, but to insist that everything that is, is and is as it is”.

Gibson inherited a lot of ideas and principles of the radical empiricist approach, but also its main consequence: this new way of understanding realism. As Gibson (Reed and Jones 1982: 374) claimed:

If invariants of the energy flux at the receptors of an organism exist, and if these invariants correspond to the permanent properties of the environment, and if they are the basis of the organism’s perception of the environment instead of the sensory data on which we have thought it based, then I think there is new support for realism in epistemology as well as for a new theory of perception in psychology.

There are various similarities between Jamesian selectivity and Gibsonian detection: both are processes in which we pick-up certain elements from the flow of continuous and ongoing experience, which make us perceive certain objects: percepts in the case of James, affordances in the case of Gibson. This amounts to claiming that this direct access to our environments make us perceive them as they present themselves to us. In this sense, Gibson's ecological psychology is a development of James' radical empiricism, because Gibson, Turvey, Shaw and Mace took the same theoretical skeleton from (1) to (4) and actualized it using mathematical and experimental tools. The ongoing flux of experience of James' approach is nothing but the informational environment or the ecological scale, in which the continuous flux is explained through ecological informational variables and invariants, which are the contemporary scientific descriptions of James' ideas. The continuous relation between agent and environment is explained with the dynamical loop thanks to dynamical systems theory. Ecological detection is the scientific explanation of James' selectivity, in which we directly pick-up elements of the flux which are meaningfully related to us. Finally, the percepts or objects of perception that appear in that flux as James described them could be, in a refined way, the affordances that are available in our environments and by which we can adjust and adapt our behaviour, because describing this process of behavioural adjustment was the main aim of psychology as James, Holt and Gibson understood it. And, in conclusion, if perception is direct, we perceive reality directly, with no representational intermediaries between agents and their environments. As Jacobs and Michaels (2002) show, if we follow the ecological principles then we can both start from realism or conclude that ecological psychology is a realist approach to cognition. Both ideas can be understood if we follow from (1) to (5) or from (5) to (1) respectively in Figure 3.5: As we have seen, ecological psychology has a new way

Ecological Principles

1. The world exists and can be known at least in part
 2. The origin of knowledge is perceptual
 3. Perception is veridical
 4. Ambient energy patterns specify environmental properties
 5. Perception is the detection of information
-

Figure 3.5: Ecological Principles. (1) shows the realist commitment of ecological psychology. Taken from Jacobs and Michaels (2002: 128).

of understanding perception: starting from the irreducible agent-environment system as the main unit of analysis, the ecological approach postulates the ecological scale as the proper level of analysis of action and perception, and develops new notions like the one of ‘ecological information’ and ‘invariant’, or changes traditional notions like ‘meaning’, ‘veridicality’ or ‘realism’ in order to explain perception in a more fruitful and dynamical way. Most of these ideas were inspired by James’ radical empiricism.

3.4 Conclusion

After depicting the fundamentals of ecological psychology, its philosophical roots and its epistemic consequences, in Chapter 5 I will show that affordances could be understood as dispositions from a non-factualist, Rylean approach. Prior to that, Chapter 4 shows why this non-factualist approach is the best framework for understanding dispositionalism. Then, I will explore in Chapter 8 in which sense affordances can be conceived as normative and why Chemero’s approach is not satisfactory at all for understanding this relation between affordances and normativity. Chemero shares the relational approach to perception that was already present in James, and also in Gibson, according to some authors. I claim that affordances are not mere relations. I think that the taking advantage of affordances can be better understood in terms of dispositions rather than in terms of relations: in order to explain perception and behaviour, relations are not able to capture the main feature of how the perception of something and, mainly, the taking advantage of something can produce certain changes in the agent’s behaviour. Chapters 9 and 10 are not related to the ontology of affordances, but to our experience of them: in both chapters I will defend a minimal conceptualist approach that will be useful for explaining how we can relate our experience to our rationality without falling under a mythical explanation (be it the myth of the Given or the myth of the mind as detached). Finally, I will show why this minimal conceptualism does not need to be committed to a representationalist approach, something that would go against the main assumptions of orthodox ecological psychology.

Chapter 4

Dispositions

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4.1 Introduction

In this chapter I offer a state of the art of dispositionalism. This is a prior step to showing, in Chapter 5, that affordances should be understood as dispositions from an anti-factualist, Rylean perspective. For this, first I offer in this chapter a succinct general view on dispositionality, following Tugby (2013). I understand that Tugby's (2013) conclusion by which dispositional realism should endorse certain variety of Platonism is not preferable over other kind of dispositionalism: the Rylean, anti-factualist one. I take this variety of dispositionalism as the most suitable way to

understand dispositions, mainly because its anti-factualist character is easier to reconcile with ontological naturalism (see section 2.2.1 on page 25).

In my discussion of dispositionalism I will be guided by a relatively uncontroversial *desideratum*: amongst competing metaphysical theories with equal explanatory power we should choose the one with more economic or parsimonious ontological commitments. The reason seems clear: it is easier for us to explain the same phenomena within the theory, model or picture that involves lesser quantity of entities or kinds of entities¹. In this sense, the lesser is the better. To sum up the main ideas that I will present in this chapter: first, I discuss the different varieties of dispositionalism. Then I show that the anti-realist approach to dispositions (the one that claims that dispositions only exist when they manifest) does not take into account very basic and intuitive situations in which we would commit ourselves to the existence of causal powers even when they do not manifest. The realist approach to dispositions respects these intuitions, but at the same time its Platonic consequences are far from parsimonious and extremely difficult to square with any kind of naturalism (see section 4.3.3). Then I introduce a third contender in the discussion: if both dispositional realism and dispositional anti-realism include a factualist commitment (as I will argue in 4.4), the anti-factualist approach to dispositions historically defended by Ryle (1949) is a third way that avoids this shared factualist assumption. Ryle introduces dispositions as the best way to understand our behaviour in certain circumstances. I claim, following Ryle, that his non-factualist view regarding dispositions is the best candidate among all dispositional approaches for explaining how we perceive and respond to affordances.

Both anti-realists and realists accept the idea that dispositions are *actually existing properties*: properties that, in Ryle's words, refer to an 'occult force' that guides the object's or the agent's behaviour. In the alternative that I will defend,

¹Tugby (2013: 473) addresses the issue of parsimony by appealing to Lewis (1973): "Since Platonism commits us to a nonspatiotemporal realm of being, it could be said that it offends qualitative parsimony. The strength of the argument under consideration is therefore likely to rest on whether it is quantitative or qualitative parsimony that is more sacrosanct. And notoriously, metaphysicians such as Lewis (1973) have argued that it is qualitative and not quantitative parsimony that is more important". Here I am not going to argue in favour of qualitative or quantitative parsimony, because I think that there could be cases in which each kind of parsimony could be compatible with naturalism if that combination is explanatory. However, here I strongly reject Platonism because it is lesser economic in a pernicious way. It is pernicious because it postulates the existence of entities that are non-natural and transcendent, which is clearly incompatible with ontological naturalism.

dispositions should not be considered as actually existing properties, because there is no occult existing force with the same ontological status as physical or chemical properties. From this Rylean anti-factualist account of dispositions, realists and anti-realists, being both factualists, would only differ in claiming when it is plausible to recognize the existence of the dispositional, factual property. Anti-realists claim that the only thing that can assure that a factual property exists is the fulfillment of the conditional analysis (because the manifestation guarantees the existence of the property), while realists claim that the conditional analysis is not exhaustive and that it does not make room for cases in which we are really committed to the existence of the property although it does not manifest (such as the disposition of being stable through time², for example). However, in this anti-factualist, Rylean approach that I present there is no need to postulate dispositions as properties possessed by agents with an ontological status akin to physical or chemical entities: on the contrary, dispositional vocabulary has an ineliminable explanatory power regarding how agents behave and, in this case, perceive and react to affordances (see 2.4.3). The idea that dispositional explanations are central and yet do not involve referential commitments avoids Platonism without losing explanatory power. For these reasons, an anti-factualist approach to our dispositions is the most explanatorily efficient and parsimonious candidate for understanding affordances, as I argue in Chapter 5.

In the next section, I offer a general view of the different approaches to dispositions and their problems. I conclude, following Tugby (2013), that dispositionalism is committed to Platonism. This is something not desirable in terms of economy or parsimony if we want to offer an elegant and naturalistic metaphysical picture of dispositionality. For that purpose, the only theory that can overcome the problems of Platonism is the non-factualist approach to dispositions offered by Ryle (1949/2009). If this is the most desirable approach to dispositions, affordances should be conceived as dispositions from a non-factualist point of view.

²Martin (2008: 20) offers an exhaustive differentiation between three kinds of dispositions. First, he claims that there are dispositions that can be lost and recovered, such as “[b]eing soluble in water, where the dissolution manifestation loses the solubility in the solution, but the solubility is recoverable by evaporation of that solution”. The second kind of dispositions includes those that are lost when manifested (for example, the disposition of being explosive, that is lost when manifested). And third, there is a kind of disposition that remains even when it is manifested, like that of “[b]eing stable, which can persist before, during, and after its manifestation” (Martin 2008:20).

4.2 Dispositionalism and the platitudes

Dispositionalism is the idea that we can understand the behaviour of agents and objects in terms of dispositions ³. Within this view, there are radically different ways in which this claim is understood.

We can distinguish at least two different varieties of dispositionalism, the factualist and the non-factualist one. Factualist dispositionalism is committed to the idea that dispositions are actually existing properties of agents and objects. This idea could be understood in two ways: in an anti-realist, empiricist way, or in a realist way (see Figure 4.1).

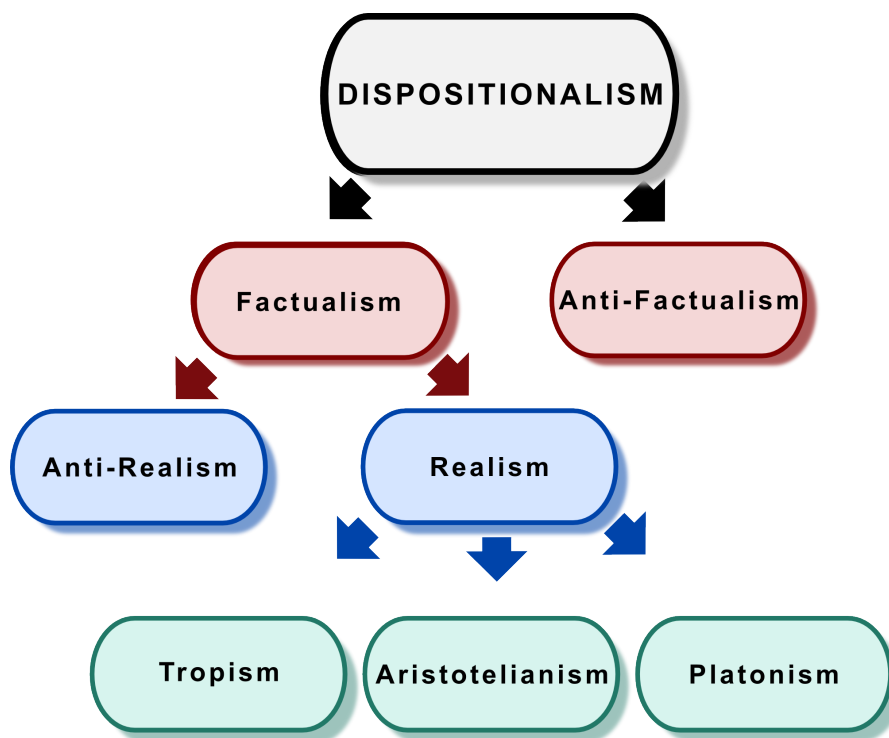


Figure 4.1: Main varieties of dispositionalism.

Dispositional anti-realism considers that dispositions are actually existing properties of agents and things, but we can only guarantee the existence of those properties if they manifest at a given time (Wright 1990). This is, empiricist or anti-realist dispositionalists are committed to the existence of those dispositional properties

³This notion is compatible with the standard one, which claims that dispositionalism is the position which accepts that some properties are dispositional (Choi and Fara 2012/2014).

once they manifest. As it has been defined, “the essence of the anti-realist position is that evidence and ontology cannot be separated” (Mumford, 1998: 51). In conclusion, the manifestation must occur, since it is an essential part of the property. Dispositional realism (Mumford 1998, Molnar 2003, Martin 2008, etc.) criticizes this approach mainly because the way in which ontology is dependent on evidence does not make justice to the variety of possible existing dispositions and also to the ways in which dispositions exert their power.

Dispositional realism states that “dispositions (or what are sometimes called ‘causal powers’) are taken to be real properties of concrete things, and properties which cannot be reduced to any more basic kind of entity” (Tugby 2013: 452). What is distinctive of this kind of property is that, according to dispositional realism, “the [dispositional] property is *characterized in terms of the causal behaviour* which things instantiating that property are apt to display. This is to say, in other words, that irreducibly dispositional properties are by their very nature *orientated towards certain causal manifestations*” (Ibid., my italics). Causal powers (the way in which dispositions are called within this realist approach) are individuated in terms of their causal behaviour; this is, in terms of their orientation towards certain manifestations (hence their names: solubility, flammability, etc.). It is their relation to their manifestation what individuates the causal power or disposition that we are analyzing. As Tugby claims: “the nature and identity of a disposition could be said to be grounded by an asymmetric relation, call it the ‘manifestation’ relation. Grounding the nature of a disposition in a genuine relation would provide a straightforward answer to the challenge of explaining the directedness (and so identity) of dispositions.” (Tugby 2013:457). For this reason, the connection between the disposition and its manifestation should be, according to some authors, necessary (Molnar 2003:181). We will see in 4.3.3 that, according to Tugby (2013), the best way to guarantee this connection is by being committed to Platonism.

The motivation behind dispositional realism is to propose an alternative metaphysical framework to Humean distinctness, the idea that the existence of every object is independent from the existence or unexistence of any other object. Molnar (2003: 181) defines it as follows: “Powers and their manifestations are distinct from, but also necessarily connected with, one another. Humeans completely deny the existence of such necessary linkages. Their position is that only contingent connections exist between the distinct objects, properties, and relations of a world.

This is the thesis of Humean distinctness (HD).” Although Hume himself recognized the problem of linking distinctness and continuity (Hume 1739/2001), dispositional realism aims at re-establishing a connection between objects and claims that they are connected in virtue of their causal powers. For that reason, and in order to combine both aspects (continuity and existential independence), this metaphysical theory claims that the only solution is to find a way to guarantee that dispositions are intrinsic (possessed by their bearers independently of the existence of the non-existence of a bearer that holds its complementary property) and relational (directed to their manifestations) at the same time. This combination of intrinsicity and relationalism is what offers an alternative metaphysical framework for those who reject Humean distinctness.

This characterization of dispositional properties is explained by means of two platitudes: The “[c]entral platitude: A particular can have a disposition even if it never manifests that disposition” and the “[i]ntrinsicness platitude: Many disposition instantiations are intrinsic to their possessors” (Tugby 2013: 454).

The first platitude refers to a feature that shows itself as self-evident for dispositional realism: we don’t need to wait until a porcelain figure is broken to claim that it is fragile, bones had the disposition to reflect x-rays before they reflected them for the first time, and we don’t need to dissolve a sugar cube in water to claim that it is soluble. As the reader may note, this platitude goes against the main spirit of dispositional anti-realism, by which the only thing that guarantees the existence of a dispositional property is that it manifests at a given time. Dispositional realists reject this anti-realist account precisely because it is something intuitive to think of an object as possessing a disposition that never manifests, but this does not mean that the object does not possess it. The previously mentioned example of the porcelain figure as being fragile is a clear example of that.

The second platitude stresses another main feature of dispositions, accurately defined by Molnar, which is that dispositions are intrinsic to their bearers. Intrinsicity is defined as follows: “F is an intrinsic property of *a* iff *a*’s having the property F is ontologically independent of the existence, and of the non-existence, of any contingent *b* such that *a* is wholly distinct from *b*; and *a*’s not having the property F is ontologically independent of the existence, and of the non-existence, of any contingent *b* such that *a* is wholly distinct from *b*” (Molnar 2003: 39-40). This idea is also very intuitive: a sugar cube still possesses the disposition to be

soluble, even when there is no water around to dissolve the cube. Just like the first wood piece was flammable before burning for the first time, dispositions do not depend on the existence of other contingent bearers of their reciprocal dispositional partners to exist. Their solubility and flammability was a property of those objects independently of the existence of their reciprocal dispositional partners⁴. As Martin (2008: 21) puts it with other example:

Think, for instance, of a particular non-existent complex substance and its non-existent solvent. The elements of the substance and solvent exist, but not their combination.

4.3 Characterizing dispositions

According to Tugby, “if one subscribes to [realist] dispositionalism—the view that natural properties are irreducibly dispositional in character—then one ought to favour a Platonic view of properties” (Tugby 2013: 451). This is so because, as Tugby shows, Platonism is the best way to account for the central and the intrinsicness platitude. If we follow Tugby (2013), we have to discard tropism, Aristotelianism and other metaphysical backgrounds for characterizing dispositions due to the different problems that I discuss in this section. Why the rest of properties and their theories (tropism, Aristotelianism, etc.) fail to accommodate both platitudes is something that is shown in the rest of the section.

4.3.1 Tropism

In order to characterize dispositions, the first distinction that appears when one sketches a view on properties consists in differentiating between tropes and universals. If one advocates in favor of universalism, one claims that all properties of a single kind (let’s say, humidity or elasticity) are instances of a single universal entity (the universal of humidity or the universal of elasticity). All properties are instances of the same universal. Tropes, on the contrary, are not instantiations of a

⁴Here I follow the widely accepted idea that dispositions are individuated in terms of their manifestation. Alternatively, some dispositional realists, such as Martin (2008), defend that dispositions are individuated by their relatedness to their reciprocal dispositional partners.

universal property: for tropism, every property is distinct, and tropes cannot exist without the bearer that holds that property. Thus, every disposition of, let's say, elasticity hold by a bearer would be different from other dispositions of elasticity. They would all be similar, not because they are all instances of the same universal, but only because they resemble each other in a certain way (Tugby 2013: 455).

The problem with tropism is that it cannot satisfy the central platitude; this is, tropism cannot face cases in which a disposition does not need to manifest in order to exist. Dispositions cannot be tropes because dispositions are individuated in terms of their directedness towards their manifestations, and if tropism⁵ claims that every dispositional property does not exist if the bearer does not exist, there are cases in which there is only one *relatum*, so that individuation cannot be done (Tugby 2013: 457). The case in which there are manifestations that never come about is difficult to solve from a tropist perspective, because “in cases where the manifestation of a thing's disposition never comes about, *there will be nothing for the relevant trope to be related to*. Therefore, by accounting for dispositional directedness in terms of a genuine relation, the trope theorists will be left with cases in which that relation has only one *relatum*” (Tugby 2013: 457, my italics). Tugby offers an example to show why tropism cannot accommodate these cases: “If we fail to account for how a disposition could have a directedness towards a manifestation in, say, the forever-dry sugar cube case, it would no longer be clear in what sense that sugar cube could be said to be water-soluble” (Tugby 2013: 457).

For this reason, dispositional realism can only accommodate the central platitude through universals. If the relation that individuates a disposition and its manifestation were established between the universal and the universal manifestation, every instance of that universal would be individuated because of directness towards the universal manifestation. Thus, universals are able to accommodate the central platitude better than tropes. But, which kind of universalism is the most suitable in order to characterize dispositions?

⁵There are different versions of tropism that Tugby (2013) does not mention, such as the bundle-theory tropism (Wayne 2008). However, I follow Tugby in his ideas on tropism because he offers an argument that is applied to a standard characterization of the position, and this includes all kinds of ways of understanding tropism, such as the one offered above.

4.3.2 Aristotelianism

Universalists ground the individuation of dispositional properties in a genuine relation between a universal disposition and a universal manifestation: thus, based on this individuation, every instantiated dispositional property would be directed to its universal manifestations. According to this view, all possible manifestations of a dispositional property in our world depend on a single, genuine relation between the universal dispositional property and the universal manifestation property (Tugby 2013: 461). In that case, “even if a particular object’s disposition never manifests, the directedness of that disposition may nevertheless be secured by a second-order (asymmetric) relation to the relevant manifestation universal. There can be such a relation because the manifestation universal can still exist even if the particular’s disposition never actually manifests” (Tugby 2013: 461). This has clear advantages at various points, according to Tugby: first, the relation that allows us to individuate dispositions is firmly grounded, and second, this universalists approach is more economic⁶ compared to the tropist approach, in which there are as many dispositional properties as bearers. But, still, there are divisions within universalists dispositionalists: it is possible to endorse an immanentist, Aristotelian version or, on the contrary, to support a Platonic approach to dispositions. Aristotelianism has been a widely accepted view for those universalists that rejected Platonism, because the main motivation behind Aristotelianism is the idea that it is not necessary to commit to the existence of properties that have never manifested.

Aristotelian immanentism, contrary to tropism, has the advantage of solving the problem of how an unmanifested disposition can be directed to something that does not exist, making justice to the central platitude. This was a clear problem for dispositional tropists, but we do not find it in the Aristotelian approach: universals exist, and they are immanent entities. If universals exist, then the problems with tropism are overcome. However, Tugby (2013) claims that there are still some problems with Aristotelianism: a problem with directness and a problem with intrinsicity. Although the central platitude is guaranteed in Aristotelianism, the intrinsicness platitude is not accommodated.

⁶ Tugby (2013) claims that universalism is more economic than tropism because it postulates a smaller number of properties. However, it is clear that commitment to transcendent universals makes universalism unsuited for ontological naturalism.

The key point is that Aristotelianism, in order to support the idea of immanent universals, needs that dispositional kinds, in order to exist, should manifest at least once. As Tugby states it: “If the effects in question have never physically occurred, then the immanent universal corresponding to the effect property does not exist” (Tugby 2013: 463). Given their immanency, if we want to establish a relation between the universal disposition and the universal manifestation, this universal manifestation should have been instantiated in space and time at least once. For example, the dispositional property of solubility would have not existed until the first manifestation of solubility appeared, because until that time the dispositional property didn’t exist given that it was not directed towards a manifestation: it couldn’t, because the manifestation didn’t exist either. So it had nothing to be directed to.

As we see again if we compare it to our previous examples, it is counterintuitive to claim that such a property suddenly appeared in an object when the manifestation came to be; in fact, our intuitions point in the opposite direction: the manifestation came to be because there was such a property in the bearer (as it happens in the example of the disposition of bones to reflect x-rays, for example). The paradoxical consequence becomes more striking if we consider that there was nothing fragile in the universe until something broke, even if the object does not have the disposition to break once that is broken. This is what Tooley (1977: 669) claimed when he pointed to the possibility that there could be laws concerning types of interactions which actually never occurred (Tugby 2013: 463). In this case, Aristotelians just bite the bullet and accept that there are not such relations. It could be claimed, according to Tugby (2013: 464), that this argument only has force for someone who already has Platonic intuitions.

However, Tugby (Ibid.) claims that there is a stronger argument against Aristotelianism and its treatment of the intrinsicness platitude. As it is defined, “F is an intrinsic property of a iff a ’s having the property F is ontologically independent of the existence, and of the non-existence, of any contingent b such that a is wholly distinct from b ; and a ’s not having the property F is ontologically independent of the existence, and of the non-existence, of any contingent b such that a is wholly distinct from b .” (Molnar 2003: 39-40). The main idea is that, within universalism, every instantiation of a dispositional universal (let’s say, fragility) is directed towards the universal manifestation, and that property is intrinsic to the bearer;

this is, it is possessed by the bearer independently of what happens in the bearer's surroundings. According to Tugby, there is a case in which the intrinsicness platitude is not satisfied within this framework. Imagine that we say that a vase that belongs to Tugby's grandma is fragile and now we put the vase in a scenario in which nothing ever happened to break. "[I]magine that the circumstances external to my grandma's fragile vase had been different, and that nothing had ever happened to break, and nothing ever will. In this scenario, the Aristotelian clearly has to say that the universal corresponding to breakage does not exist, since it has no *spatiotemporal instantiations* (we are of course assuming that Grandma's vase is never broken either). But if this is so, there is now no manifestation universal for the property of being fragile to be directed towards" (Tugby 2013: 467, italics added). This is a case in which the intrinsic character of dispositions is not satisfied, because the external circumstances of Tugby's grandma's vase determine the possession or the lack of the dispositional property. And if intrinsicness is an essential feature of dispositions from a realist point of view, an Aristotelian account of dispositional properties is not a good candidate to characterize these properties from a realist point of view.

4.3.3 Platonism

According to Tugby (2013), Platonism is the only universalist approach that can satisfy both platitudes.

First, let's analyze the definition of intrinsicness. A property is not intrinsic if it depends on the existence or non-existence of another contingent entity in the surroundings, but the definition does not exclude *necessary* or transcendent entities (Tugby 2013: 467-8). Intrinsicness is "guaranteed because the nature and identity of [let's say, the disposition of] fragility is secured by the second-order relations between universals which transcend the spatio-temporal realm" (Tugby 2013: 468). This is quite important because we have seen what happens if universals are immanent, as seen in the Aristotelian view: they cannot make justice to the intrinsicness platitude. But if these universals were not immanent but transcendent, there would be another realm in which the universal disposition and the universal manifestation would always be related, and then the directness is guaranteed, even if we move to a world in which a manifestation of a disposition never happened –such as when

we moved Tugby’s grandma’s vase to a world in which there wasn’t (and will never be) a manifestation of breakage.

Dispositions, in the Platonic view, are individuated because they are universal transcendent properties that are directed to a universal manifestation that is also transcendent, both located in a second-order, non spatio-temporal realm. Thus, this second-order relation is something that guarantees the individuation and identity of dispositions, and this is what makes them satisfy both the central and the intrinsicness platitude. If all instances of these universals in our world depend on this second-order relation between transcendent entities, then we can account for the central platitude (because they do not need to manifest in order to exist; the existence, individuation and nature is guaranteed by this second-order relation) and the intrinsicness platitude (they are intrinsic because it does not matter what changes in the surroundings; the individuation is guaranteed by the second-order relation). This second order relation between transcendent universals that satisfies both platitudes (as I show in Table 4.2) in is what also guarantees the demanded strong relation in order to reject Humean distinctness (see section 4.2).

Tugby claims that Platonism could be problematic for certain authors, because “[s]ince Platonism commits us to a nonspatiotemporal realm of being, it could be said that it offends against qualitative parsimony” (Tugby 2013: 472). I don’t want to initiate a discussion on which is more preferable, if qualitative or quantitative parsimony. I think that authors choose between them depending not only on which kind of parsimony they consider more sacrosanct, but also moved by other commitments, such as those of satisfying the central and the intrinsicness platitude.

METAPHYSICAL FRAMEWORK	CENTRAL PLATITUDE	INTRINSICNESS PLATITUDE
Tropism	X	✓
Aristotelianism	✓	X
Platonism	✓	✓

Table 4.2: A summary of what platitudes are satisfied by Tropism, Aristotelianism and Platonism.

In my view, Platonism should be rejected precisely because, as Tugby claims,

it commits us to a nonspatiotemporal realm of beings populated by transcendent universals. We can concede to Tugby (2013) that this could be the best view for characterizing dispositions if *we want to satisfy both platitudes and if we also claim that dispositions are actually existing properties*. But I believe that if we reject that dispositions are actually existing properties, we don't need to look for strict and exhaustive conditions that could guarantee their existence in our world. If dispositions are not actually existing properties we do not need to delve into which property or framework is more suitable to account for those properties. And if we do not need to characterize dispositions in terms of actually existing properties, then we can avoid a commitment to Platonism. This commitment to Platonism also means a problem for the two main ideas that guided this dissertation: naturalism and anti-factualism (see 2.2 and 2.3).

The main problem with Platonism is that it argues in favor of the existence of a second-order transcendent realm, distinct from our spatiotemporal realm. Also, along with the existence of this second-order non-spatio-temporal realm populated by transcendent universals, there are questions like the following: how does the first-order realm connect with that second-order realm, how are these Platonic ideas able to affect material entities if they are not material themselves, how can material entities connect with spooky entities like Platonic ideas or properties, etc. If we accept ontological naturalism (as seen on page 25), transcendent entities mean a problem at least for the reasons mentioned above (how do we connect both realms? How two things that are different in kind are able to affect each other? etc.). Also, within a naturalist framework, it is clear that a Platonic commitment to dispositions is something that notoriously inflates our ontology, which is something non-desirable in terms of economy.

Also, understanding dispositions as a kind of actually existing property commits us with factualism / descriptivism. And if, according to Tugby (2013), dispositional realism at the end commits us with a certain variety of Platonism, this leads us to support what could be called as a 'super-descriptivism': now we don't just "describe *worldly* objects, properties, and relations" (Chrisman 2007: 227, italics added), as descriptivism is supposed to do, but also *nonspatiotemporal* objects, properties and relations. Platonic dispositionalism extends descriptivism beyond our world to a transcendent, nonspatiotemporal one. This is why, from an anti-factualist and anti-descriptivist approach, Platonic dispositionalism could not be

defended.

The next section offers a framework in which dispositions could be understood from an anti-factualist approach: this is, the Rylean approach to dispositions. As we have seen in section 4.2 on page 76, this anti-factualist dispositionalism does not accept that dispositions are actually existing properties, so it is not committed to descriptivism either. In the following sections I will show how this anti-factualism regarding dispositions is more economic than Platonic dispositionalism. Also, I will show how it can satisfy the central platitude while remaining neutral with respect to the intrinsicness platitude.

4.4 An anti-factualist, Rylean approach to dispositions

According to factualist dispositionalism (which includes both the realist and the anti-realist approaches), our explanations of our dispositions towards certain features of the world are taken to be descriptive / factual, on a par with the explanations of the natural sciences. Dispositionalists describe real, actually existing properties of objects and agents. To claim that certain object or agent possesses a particular disposition is to do the same kind of thing as (let's say) attributing a certain weight to a subatomic particle or as describing the mechanics of the sodium-potassium pump. This is because "dispositions (or what are sometimes called 'causal powers') are taken to be real properties of concrete things" (Tugby 2013: 452). In that sense, they occupy a space in our ontology just like other entities do, and this means that if we are Platonic dispositionalists, as seen in 4.3.3, we are not only committed to the existence of those properties in our world, but also with the existence of transcendent universals in another realm that are connected with the spatiotemporal entities of our world. This is not an economic view from a naturalist perspective.

Here I explore Ryle's (1949/2009) non-factualist account of dispositions, and my aim is to show that his approach is the most economic way to reconcile ontological naturalism with the explanatory power of dispositions.

4.4.1 Main features of Rylean dispositionalism

Ryle's (1949) approach to mind is radically anti-Cartesian and non-factualist. This approach also affects his view of dispositions. Sometimes Ryle has been accused of being part of a tradition that understands dispositions in an anti-realist or empiricist way (see page 76). Anti-realist or empiricist dispositionalism claims that the only thing that guarantees the existence of a property is that the property in question manifests at a given time (Wright 1990). This is, the possession of the property solely depends on the empirical evidence –the manifestation. The manifestation guarantees the existence of the property to our eyes. In conclusion, the manifestation must occur, since it is an essential part of the property. Quotes like the following are taken as an example of this interpretation (Ryle 1949/2009: 102):

The tendency to ruminate and the habit of cigarette-smoking could not exist, unless there were such processes or episodes as ruminating and smoking cigarettes. 'He is smoking a cigarette now' does not say the same sort of thing as 'he is a cigarette-smoker', but unless statements like the first were sometimes true, statements like the second could not be true.

Dispositional realists differ from the anti-realists just because they consider that the manifestation is not something that should necessarily happen at a given time, hence the importance of the central platitude (see again section 4.2 on page 76). An object can possess a dispositional property even if it is never manifested. But both empiricism and realism are committed with this descriptivist / factualist idea: dispositions exist just like other entities in our ontology do, and they are as real as them. On the contrary, the interpretation that is going to be offered here claims that dispositions do not possess this factual aspect. Any dispositional realist could disagree with Ryle's phrases quoted above because she understands that dispositions do not need to manifest in order to exist. Also, in the same vein, a dispositional anti-realist would not agree with the following statement (Ryle 1949/2009: 22):

Now a skill is not an act. It is therefore neither a witnessable nor an

unwitnessable act. To recognise that a performance is an exercise of a skill is indeed to appreciate it in the light of a factor which could not be separately recorded by a camera. But the reason why the skill exercised in a performance cannot be separately recorded by a camera is not that it is an occult or ghostly happening, but that it is not a happening at all.

Skills are considered as dispositions in the Rylean view, and also in the realist view (according to Molnar 2003: 95, for example, playing the violin is a disposition). But, unlike factualists, Ryle does not consider dispositions (or their manifestations) as facts, actually existing properties or happenings, either occult or not behind their manifestations. This is why the statement above would also shock a dispositional realist: ‘neither a witnessable nor an unwitnessable act’. Dispositional realists claim that dispositions are actually existing properties that we can sometimes see in action (sometimes can manifest). Anti-realists think that we can state that they really exist when they are in action (when they manifest). Ryle claims that dispositions are neither witnessable nor unwitnessable. This is so because he understands that dispositions are not actually existing properties; this is, that they are not properties of the same (ontological) kind as the bearers that possess them.

Ryle’s approach is focused on understanding how we use our dispositional vocabulary rather than understanding which are the real, actually existing properties that populate our universe. He claimed that our dispositional vocabulary does not always describe real properties (‘occult happenings’) of the world when it enounces skills, occurrences and tendencies. This is so because our vocabulary is not always referential (not all our expressions refer to actually existing properties, see 2.3.1). As he puts it (Ryle 1949/2009: 101, emphasis added):

Sentences embodying these dispositional words have been interpreted as being categorical reports of particular but unwitnessable matters of fact instead of being testable, open hypothetical and what I shall call ‘semi-hypothetical’ statements. The old error of treating the term ‘Force’ as denoting an occult force-exerting agency has been given up in the physical sciences, but its relatives survive in many theories of mind and are perhaps only moribund in biology.

As we see, when Ryle claims that most authors interpreted dispositional vocabulary as being categorical⁷ reports, we can see that he is not interested in describing a real, existing property of the world, just as both dispositional empiricists and realists (factualists) do. Ryle is not focused on discovering and / or describing how these ‘forces’ or causal powers interact, but rather on analyzing how we use our vocabulary when we talk about dispositions (by means of ‘semi-hypothetical’ statements). He is not focused on explaining real, actually existing properties, powers or forces that may not exist *per se*. We do not need to commit ourselves to the scientific existence of real properties or entities that guide our actions in order to understand or explain our behaviour, Ryle claims. The same happens to certain tendencies of non-living objects (like the solubility of sugar, for example).

The idea of focusing on conditionals⁸ for understanding the explanatory power of dispositions recently opened a whole discussion on how accurate is the conditional analysis in order to make explicit the explanatory power of dispositional properties (Lewis 1997, Martin 2008, etc.). However, even when Ryle is considered as an author that reduces the causal role of dispositions to a mere conditional analysis, he never claimed that there is just one formula for enouncing the effectiveness of dispositions like Lewis (1997) and other authors who defended the conditional

⁷‘Categorical’ should not be understood in terms of categorical properties; this is, as opposed to ‘dispositional’ in philosophy. As Martin (2008: 44) claims: “Philosophers commonly distinguish dispositional and categorical properties. Dispositional properties are taken to endow their possessors with particular dispositions or powers; categorical properties are thought to endow objects with nondispositional qualities. Some philosophers have denied the existence of categorical properties, arguing that every property is purely dispositional (see, for instance, Mellor 1974; and Shoemaker 1980). Others deny dispositional properties. Instead, the term ‘categorical’ in this context should be understood as a kind or type of statement that exhausts in a very distinctive syntactical way how things are to be described, just like the reductive conditional analysis criticized by Martin (2008), for example.

⁸The discussion on the explanatory power of the reductive conditional analysis is quite wide and fruitful, and one key example is the debate on the explanatory power of reductive analyses. The main idea is that the behaviour of a disposition can be reduced to a single hypothetical statement of a very distinctive form (“An object *x* is disposed to *M* when *C* iff *x* has an intrinsic property *B* such that, if it were the case that *C* and if *x* were to retain *B* for a sufficient time, then *C* and *B* would jointly cause *x* to *M*”, Choi and Fara 2012/2014). Even when dispositional anti-realists reformulated the conditional analysis in order to make it more sophisticated and explanatory (Lewis 1997), the critique of the dispositional realists to this idea is that, in order to understand any conditional analysis of dispositions, one must be previously committed to the existence of causal powers (Martin 2008). Also, anti-realists do not take into consideration cases in which a disposition is possessed by the bearer that persist before, during and after its manifestation, such as it happens with ‘being stable’ (Molnar 2003: Chapter 4, Martin 2008: 20). In conclusion, all kinds of conditional explanations are dependent on a previous commitment with causal powers, but not vice-versa, like anti-realists suggest. For further development, see Martin (2008: 12-24).

analysis claimed. On the contrary, Ryle does not reduce the explanation of dispositions to just one kind of conditional analysis. However, arguing this does not mean that we don't need conditionals to explain causal powers. As he claimed (Ryle 1949/2009: 102, emphasis added):

The phrase 'smoke a cigarette' has both episodic uses and, derivative from them, tendency-stating uses. But *this does not always occur*. There are many tendency-stating and capacity-stating expressions which cannot also be employed in reports of episodes. We can say that something is elastic, but when required to say in what actual events this potentiality is realised, *we have to change our vocabulary* and say that the object is contracting after being stretched, is just going to expand after being compressed, or recently bounced on sudden impact. There is no active verb corresponding to 'elastic', in the way in which 'is ruminating' corresponds to 'is a ruminant'. Nor is the reason for this non-parallelism far to seek. There are several different reactions which we expect of an elastic object, while there is, roughly, only one sort of behaviour that we expect of a creature that is described to us as a ruminant. Similarly there is a wide range of different actions and reactions predictable from the description of someone as 'greedy', while there is, roughly, only one sort of action predictable from the description of someone as 'a cigarette-smoker'. In short, some dispositional words are highly generic or determinable, while others are highly specific or determinate; the verbs with which we report the different exercises of generic tendencies, capacities and liabilities are apt to differ from the verbs with which we name the dispositions, while the episodic verbs corresponding to the highly specific dispositional verbs are apt to be the same.

This Rylean analysis of semi-hypothetical conditionals, as we see, is quite far from a mere reductive analysis under which all kinds of dispositional behaviours fall. This paragraph seems to be in line with the Molnarian idea of pleiotropic powers in which one disposition has many effects, even when dispositions get their identity from their manifestations (Molnar 2003: 194-5). The Rylean approach to dispositions has always been understood as empiricist or anti-realist because he

focused on the way we talk about dispositional properties, but this emphasis is not understood in the same way as dispositional anti-realists do: Ryle is neither committed to the idea that there is only one kind of analysis or conditional for explaining how dispositions manifest, nor committed to the idea that this vocabulary describes the existence of actually existing properties.

But if Ryle does not understand dispositions as actually existing properties like mass, weight or any other natural property, how does he understand the use of this dispositional vocabulary? He claims that our dispositional vocabulary is useful not in the sense that it explains how certain properties, as occult forces, exert their power in order to reveal themselves as an intrinsic feature of the agent or object that bears them. This vocabulary is useful in order to understand certain behaviours within a certain range of descriptions. But those descriptions do not need to be descriptions of hidden properties. What we do when we use this vocabulary is to allow ourselves to explain how to *infer* certain statements that explain specific behaviours from others: they work as inference tickets that allow us to move from one statement to others (Ryle 1949/2009: 105), which is not the same as claiming that there is a special factual force or property that is responsible for this change. Thus, dispositional terms, far from being an expression of occult but actually existing properties, are something like discursive ‘tickets’ that are useful to move from one explanation to another, without the need to commit ourselves with a property that leads this change. Elasticity is a disposition that has different manifestations, but elasticity *per se* is not something that can be found in a body or object in the same sense as we can see its atoms or its size. It is just a term to explain different behaviours of an object, but we understand these behaviours in a better way if we appeal to the notion of elasticity, which is the capacity of certain entities to respond in different ways under different conditions. But this does not commit us with the idea that this ‘elasticity’ is a property of the same kind as the size of the object. By using the term we just say that this entity is disposed to behave in such and such way under specific circumstances. The term does not stand for an entity or a property; it is just a way of explaining behaviours, tendencies or capacities in a more detailed and richer way.

If the example of elasticity that I mentioned in the previous paragraph is not persuasive enough, the way Ryle understood migration in birds (Ryle 1949/2009: 124-5, emphasis added) could be more revealing and persuasive for understanding

his approach:

The description of a bird as migrating has a greater complexity than the description of it as flying in the direction of Africa, *but this greater complexity does not consist in its narrating a larger number of incidents.* Only one thing need be going on, namely that the bird be at a particular moment flying south. *'It is migrating' tells not more stories, but a more pregnant story than that told by 'It is flying south' (...)* This point is connected with a very common use of 'because', one which is different from all the uses previously distinguished. The two statements 'the bird is flying south' and 'the bird is migrating' are *both episodic reports.* *The question 'Why is the bird flying south?' could be answered quite properly by saying 'Because it is migrating'.* *Yet the process of migrating is not a different process from that of flying south;* so it is not the cause of the bird's flying south. Nor, since it reports an episode, does the sentence 'because it is migrating' say the same sort of thing as is said in 'because it is a migrant'. We must say that 'it is migrating' describes a flying process in terms which are partly anecdotal, but are also partly predictive and explanatory. *It does not state a law, but it describes an event in terms which are law-impregnated.* *The verb 'migrate' carries a biological message, as the verb 'dissolve' carries a message from chemistry.* 'It is migrating' warrants the inference 'it is a migrant', as 'it is dissolving' warrants the inference 'it is soluble'.

The key point is that the disposition for migrating is not a property of the bird of the same kind as flying. This is, for explaining flying and migrating we do not have to postulate the existence of an occult force or occult incidents (little facts, let's say) behind them. There is no need to postulate the existence of different facts hidden behind every dispositional expression by which we describe a particular behaviour. Just like for explaining the tendency to sleep that some agents possess under certain circumstances we do not appeal to a hidden force called '*virtus dormitiva*', we do not need to appeal to any '*virtus migrativa*' for explaining migration. Dispositions are not considered as *actually existing* properties, but as expressions that allow or warrant us to make some inferences that are useful inasmuch as they are explanatory, in the sense that they carry certain messages that make us understand processes in a richer way (because we can infer more things

than using other expressions, for example in the case of flying and migrating). Solubility, elasticity, migration, and the rest of tendencies and skills are useful in our vocabulary not because we are enumerating different actually existing properties that are a different kind of *facts* from the factual elements that already constitute objects, but because they are terms that work as inference tickets that warrant us for making better explanations of the behaviour of agents.

This is the best way to reconcile our naturalistic, common-sense view of the world with our dispositional vocabulary: if dispositions are not considered as actually existing properties (this is, if they are considered just as ways of explaining certain behaviours that do not stand for specific factual elements in our ontology), then we do not inflate our natural ontology with extra elements like Platonic transcendent universals that populate a transcendent realm that is (somehow) connected with our world. We keep the explanatory power of our dispositional vocabulary without adding extra elements to our ontology, contrary to the Platonic approach to dispositions (see 4.3.3). This is the main benefit of the Rylean, non-factualist view.

4.4.2 Rylean dispositionalism and the platitudes

Despite these advantages, some defenders of a factualist approach to dispositions would be concerned about the status of the two platitudes (the central and the intrinsic, see section 4.2) within this anti-factualist framework. The Rylean view accepts as obvious the central platitude, while remains neutral with respect to the intrinsicness platitude.

In order to recall it, the central platitude claims that a particular can have a disposition even if it does not manifest it. Understood in a non-factualist way: instead of claiming that a particular can have a dispositional property, which is something like stating a fact, a Rylean anti-factualist approach does not accept that dispositions are properties. Instead, the central platitude is understood as appealing to no actually existing property. This is, agents and objects have certain tendencies to behave in a certain way under the right circumstances, and this is something self-evident and not problematic at all. This could be something problematic for someone who understands the platitude in a factualist way; this is, in

a way in which that person has to prove the existence of a property (or an ‘occult force’) that we have no evidence of until it manifests. But from an anti-factualist perspective we are just committed to the idea that certain expressions or verbs are not fact stating; this is, that they are able to predict and explain certain behaviour under certain circumstances. Dispositional vocabulary is different from other vocabularies precisely because it is useful for explaining capacities and tendencies, and capacities and tendencies do not manifest every time. As Ryle claimed: “To say that a person knows something, or aspires to be something, is not to say that he is at a particular moment in process of doing or undergoing anything, but that he is *able to do certain things, when the need arises*, or that he is prone to do and feel certain things *in situations of certain sorts*” (Ryle 1949/2009: 100, emphasis added). Thus, the central platitude is clearly accepted within the Rylean, anti-factualist approach.

The case of the intrinsicness platitude is quite different. Intrinsicness claims that the possession of a property by a bearer is something completely independent of its surroundings. In the case of dispositions, we have seen in the previous sections how authors like Tugby (2013) consider this idea as a very important feature of dispositions. In fact, Aristotelianism is rejected as a framework for characterizing dispositions precisely because it cannot accommodate this intrinsicness platitude. However, there are other authors like McKittrick (2003) who defend the idea that dispositions can be extrinsic (this is, that the possession of a dispositional property by a bearer is something that may depend on its surroundings). For example, weight would be an extrinsic dispositional property because it depends on the planet in which this feature is placed. Tugby rejects this view by claiming that “unlike weight, mass is plausibly not extrinsic: no matter where a massive particular is located, it will retain the same gravitational abilities (unless its mass changes). In sum, then, it seems clear that even if some dispositions are extrinsic to their possessors, many are not” (Tugby 2013: 466). Thus, the conclusion is not the rejection that dispositions are extrinsic, but only the idea that if some of them are, then *many are not*. An anti-factualist approach to dispositions would not delve into the intrinsic / extrinsic debate on dispositional properties precisely because this framework does not understand dispositions as properties: Ryle was only concerned with how our dispositional vocabulary works, with the way we explain the behaviour of objects and agents, and not with which are the factual properties that are possessed by these objects and agents. He was not doing meta-

physics; he was merely analyzing our dispositional vocabulary. Thus, dispositional anti-factualism, as such, is not committed to the existence of either intrinsic or extrinsic properties, and so it remains neutral with respect to the debate and with respect to the intrinsicness platitude. But, at the same time, this does not mean an obstacle in order to retain the explanatory power of our dispositional vocabulary. An anti-factualist approach to dispositions can easily accommodate the intuitions that support both the intrinsic and the extrinsic view of dispositions because we can infer certain claims and not others if we are asked which is the weight of certain entity depending on the location of that entity (if it is located here or in an extra-terrestrial location). Also, we would be able to infer certain things about the mass of an entity if we are told that it is on earth or not, and also its mass. This means that our dispositional vocabulary would work in the same way, and we could infer the same things with independence of supporting the extrinsic or the intrinsic view of dispositions. This is why dispositional anti-factualism remains neutral with respect to the intrinsicness platitude (see Table 4.3): this view is just focused on how we use our dispositional vocabulary, so it keeps the explanatory power of dispositions, and it can also accommodate the intuitions of intrinsic and extrinsic dispositionalists without supporting their metaphysical theses.

METAPHYSICAL FRAMEWORK	CENTRAL PLATITUDE	INTRINSICNESS PLATITUDE
Tropism	X	✓
Aristotelianism	✓	X
Platonism	✓	✓
Anti-Factualism	✓	N

Table 4.3: A summary of what platitudes are satisfied by factualist dispositionalism and non-factualist dispositionalism.

4.5 Conclusion

As we have seen, dispositions could be understood both in a factualist and in an anti-factualist way. Factualist dispositionalism is better understood under dispo-

sitional realism (see 4.2), but this approach forces us to commit to certain variety of Platonism. Since it is difficult to reconcile Platonism, anti-factualism and ontological naturalism (see 4.3.3), the Rylean anti-factualist approach is preferable as a framework for understanding dispositions. It is more economic: it does not proliferate our ontology with transcendent universals (because dispositions are not properties at all) while the explanatory power of dispositional vocabulary remains intact (see 4.4.1). Thus, dispositions, understood from a Rylean, anti-factualist perspective, are the best candidate in order to make sense of affordances. Chapter 5 is devoted to analyze the most prominent theories of affordances in ecological psychology, and it concludes claiming that affordances should be understood within the Rylean, anti-factualist approach that has been defended in 4.4.

Chapter 5

Are affordances dispositions?

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5.1 Introduction

“The physical environment and the individual human mind should be considered to be reciprocal disposition partners for the mutual manifestation of perception. The reaching out comes from both sides of the partnership in their mutual manifestation.”

Martin (2008: 60)

“An affordance cuts across the dichotomy of subjective-objective and helps us to understand its inadequacy. It is equally a fact of the environment and a fact of behavior. It is both physical and psychical, yet neither. An affordance points both ways, to the environment and to the observer.”

Gibson (1979: 121)

In this chapter,¹ I apply the idea of the Rylean, anti-factualist approach to dispositionalism (see 4.4) to affordances. First I explain what are affordances in a neutral way (next section 5.2), and then I analyze Chemero’s proposal of considering affordances as features of the environment rather than properties. The problem that I find with this view is the following: Chemero bases his rejection of the idea that affordances are properties on a misrepresentation of Michaels, Zeinstra and Oudejans’ (2001) experiment, taking a quote of Michaels’ (2000) as a basis. But I show that Chemero misrepresents the consequences of the experiment, and, given that this misrepresentation is Chemero’s main argument, then his conclusion is unmotivated. I conclude showing that the debate between properties and features is not a genuine one, since the classics in the ecological literature do not

¹The ideas depicted here were presented as several talks and a poster presentation in different international workshops and conferences: the XII European Workshop on Ecological Psychology (UAM, 2012), VII Congreso de la Sociedad de Lógica, Filosofía y Metodología de la Ciencia en España (USC, 2012), X National Conference of the National Society for Analytic Philosophy (Sassari University, 2012), Seminario sobre Affordances y Artefactos (UAM, 2011) and the Workshop on Dispositions (UGR, 2012). I am thankful to the audiences at these meetings for fruitful comments and discussions. I am specially thankful to Neftalí Villanueva, David Travieso, Álex Díaz, María Muñoz, Juan González, Rani Anjum, Harry Heft and Rob Withagen for their suggestions and comments.

find any problem in this question, and also since Chemero's arguments are unsupported (see 5.3.1 to 5.3.5). After that, I show an overview of the main theories of affordances (see 5.4) and I contrast these views with dispositionalism. I conclude that those approaches offer a view of the issue that does not make justice to the outcomes and main ideas of dispositionalism (see 5.5). And Chemero's (2009) relationalism and Turvey's (1992) dispositionalism are a variety of the trope theory. After that, I apply Ryle's anti-factualist ideas on dispositions to affordances (see 5.6), concluding that this approach is the most explanatory and economic.

5.2 What are affordances? A neutral picture

As we have seen in Chapter 3 (see section 3.2 on page 44), according to ecological psychology, agents perceive certain elements (surfaces, approximations, edges, etc.) that possess an ecologically informational structure that guides them in order to adapt or modulate their behaviour (see pages from 49 to 54). In conclusion, those environmental features are information specific to certain actions that agents are able to perform. Thus, we detect information related to our actions, to the things that we can do given the characteristics of the environment. In summary, the objects of perception within the ecological framework are not our common objects from a geometrical, physical, or chemical perspective. For example, when we perceive an apple we do not perceive its mass or the carbohydrates that it contains; rather, when we perceive an apple we perceive something biteable, graspable, etc. Other animals may perceive it as biteable too, or even can perceive it as shelter (Siegel 2014: 39). We also perceive certain obstacles as avoidable, some other objects as reachable, etc. In sum, according to ecological psychology, what we usually perceive are the opportunities for acting that we can take advantage of at every moment of our active interaction with the environment (see 3.4).

As we have seen in section 3.2.1, given the particular active character of agents, we explore our environments and through our own actions we can perceive meaningful information, *i.e.*, information that allows the agents to continue acting in a particular way (and this is how the action-perception loop is established, as told in section 3.2.8). For ecological psychologists, that information makes sense as constituted in the interaction between agents and our environments. For example, the

combination of the round shape of the apple plus the fact that hominids possess an opposable thumb allow for the emergence of a graspable feature in the O-E system. This ‘graspability’ or graspable property would not be found in the apple if there were no animal that could grasp it². On the contrary, if there were no objects to grasp, we would not say that opposable thumbs possess the function of grasping objects. This is why affordances are properties to be found only in the O-E systems. As mentioned in section 3.2.4., the environment possesses meaningful or valuable information in relation to the capacities of the agents. This information constitutes the ecological scale in which O-E systems are analyzed. And affordances are some of the special properties or objects of perception that we can find at that level or scale.

There is overwhelming evidence that experimentally supports the existence of affordances. Some of the classics are step-across-ability (Cornus et al. 1999) and sit-on-ability of surfaces (Mark et al. 1990), reachability in the horizontal (Carello et al. 1989) or vertical planes (Pepping and Li 1997), pass-through-ability (Warren and Whang 1987) and pass-under-ability of apertures (White and Shockley 2005), and stand-on-ability of slopes (Fitzpatrick et al. 1994), for example.

One classic experiment on affordances is that of Warren (1984) on climbability or step-up-on-ability. He found the informational elements of the environment and the properties of agents that allow for this climbability or step-up-on-ability. As Richardson et al. (2008) depict it:

Warren (1984) not only demonstrated that individuals accurately perceive the boundary between what is [climbable /] step-up-on-able or not, but also that the perception of this boundary is determined by information that specifies an invariant ratio of riser-height to leg-length.

As Chemero (2009: 195) explains, for this “Warren (1984) measured the leg length of his subjects and their energy consumption while climbing stairs of different heights, and recorded their judgments about which steps were climbable”. This experiment showed that we are able to perceive stair-climbing affordances. Recently some authors replicated Warren’s experiment for climbing with a sensory substitution device (Travieso et al. in press).

²This idea is supported by Turvey (1992) and Chemero (2009), while it is not accepted by Reed (1996).

To sum up all their peculiarities, affordances are directly perceived, context sensitive, and also require the flexible behaviour of the agent to be perceived and taken advantage of. In Gibson's (Reed and Jones 1982: 408) words:

The environment of animals can be described at different levels. At the level of fundamental physics it can be said to consist of matter and energy, of particles and their interactions. At a more familiar level, but still one described by physics and solid geometry, it can be said to consist of *substances*, a *medium*, and the *surfaces* between them. With emphasis on the surfaces and their layout, the environment could be described in terms of substratum, enclosures, detached objects, edges, corners, convexities and concavities; these are the *features* of surface-layout. Note that these features of the environment are geometrical, or mathematically abstract in some degree, but that they begin to be *meaningful*. Edges and corners and surfaces, for example, *combine* to make objects of use and enclosures for shelter. (...) Then, next, the environment can be described as the *surroundings* of the animals who live and get about in the medium. Finally, at the highest level, the environment can be described in terms of *what it affords the animals that live in it*. So considered it consists of objects, substances, places, events, and other animals, all of which have meaning. Note that what these things afford depends on the substances they are made of, the layout of their surfaces, and the ways in which the layout changes.

The main feature of affordances at the epistemological level is that they are the possibilities for acting that are directly perceived by agents. This is why ecological psychology explains perception in a direct way (as we saw in 3.2.6). This direct character implies that there is no necessity to postulate any mental mediation whatsoever between the information and the agent who perceives it. Perceiving something directly means that the agent "is in nonmediated contact with that thing" (Chemero 2009: 98). There are no representations or any other kind of mental gymnastics that help agents to detect the information presented to them. Historically, ecological psychology is a reaction against representationalism because through representations we perceive the world in an *indirect way*. That is, we need to process the stimulus or information in order to trigger an answer. For ecological psychologists, agents (given this information-based relation between them and their

environments) directly perceive the affordances of their environment. There is no mediation of any kind; our environment is transparent to us. There is no possibility of error because (according to Shaw's Principle of Symmetry explained in 3.2.10) the environment allows for the presence of information, and this information specifies the presence of affordances³. So, because of specificity, you cannot perceive what the environment does not specify. Thus, when certain information is detected, the opportunity for acting is perceived as such because ecological information is information *for acting*.

Affordances are elements of the environment that are related to the agents that perceive them. Within the ecological framework, action and perception are part of a continuous looping process (see pages from 48 to 61). There is no need to postulate any inner sub-personal process that could exhaust this kind of interaction between organism and environment. Although there is no mental mediation (representations, for example) in the detection of affordances (hence its direct character), their detection implies certain degree of flexibility. Thus, when exploring the environment, the agent's active character leads it to perceive affordances and also to take advantage of them *in different ways*.

The flexibility of the actions of agents for detecting affordances is reinforced by the idea that the same affordance can be detected through different channels (some affordances are not channel-specific). The drinkability or undrinkability of water, for example, can be detected both through the visual and the olfactory system. Other examples include, as we have seen, graspability or climbability: a visually impaired person can grasp an object or climb an obstacle by either watching or touching it. These brief examples should be enough to illustrate that some affordances are not channel-specific. Another peculiarity is that the same affordances can be perceived when the agent performs different movements or occupies different positions in the environment. For example, an agent is able to detect the same optic flow and the affordances moving his or her head, moving just his or her body or even moving both the body and the head at the same time (Reed 1991). In conclusion, affordances need not be channel-specific, nor are they specific to just one perceptual route within one channel either.

Given that affordances can be perceived by different means (within the same

³For a more detailed explanation of error as a necessary condition for normativity and the lack of error in ecological psychology, see Chapters 6, 7 and 8.

channel or through different channels) the reception of the information and its response can be performed through different means, too. The movements of the visually impaired and the non-visually impaired person both detecting and taking advantage of the drinkability, graspability or climbability of the environment are not identical. Also, given the peculiarities of each different situation (environment-sensitivity), the agent cannot always repeat the same movements for taking advantage of the same affordance. A mountaineer can climb the same mountain dozens of times but she will not repeat the same movements every time even if the same affordances are detected. A minimum degree of flexibility in detection and performance is needed if we claim that affordances are not channel-specific. Unlike habits or drills (which consist of repeating identical movements when receiving the same stimuli), affordances can be perceived through different channels and can be answered to by different means.

Thus, affordances are only understood within an ecological scale, the proper level of scientific analysis for perception an action. Inasmuch as the environment is understood as an informational manifold of possibilities for perceiving, and accepting that this information is information for acting (this is, related to an agent), several philosophically-inspired questions arise, mainly concerned with the subject-object dichotomy and with the difference between the mental and the natural. It seems that, according to the classics in ecological psychology, the ecological scale that allows us to discover affordances is so peculiar that affordances cannot be properly explained within these dualistic frameworks. To put it in Gibson's words (unpublished manuscript dated from 1976, quoted in Reed and Jones, 1982: 409):

The notion of affordances implies a new theory of meaning and a new way of bridging the gap between mind and matter. To say that an affordance is meaningful is not to say that it is "mental" To say that it is "physical" is not to imply that it is meaningless. The dualism of mental vs. physical ceases to be compulsory. One does not have to believe in a separate realm of mind in order to speak of meaning, and one does not have to embrace materialism [this is, physicalist reductionism] in order to recognize the necessity of physical stimuli for perception.

This new way of understanding our interaction with the environment leads to further questions on the nature of these objects of perception. One important

question is that of how we could understand their ontology. The proposal offered in this work is that, following the conclusions of Chapter 4 (see sections 4.4 and 4.5), affordances could be understood as dispositions from an anti-factualist or Rylean perspective.

In order to reach this conclusion, the order of this chapter goes as follows: First, section 5.3 deals with Chemero's proposal for understanding affordances as features of the environment rather than properties. I offer some evidence in favour of claiming that this dilemma is not a real one if we pay attention to the classic literature, so affordances can also be understood in certain contexts as properties. After this, I briefly show in sections 5.4 and 5.5 which are the three main ecological theories that offer an ontological analysis of affordances, and I outline why these three approaches are finally unsatisfactory. Later, section 5.6 explains the advantages of understanding affordances as dispositions from an anti-factualist, Rylean approach.

5.3 Affordances: properties or features of the environment?

The idea that affordances are properties of objects is widely accepted in ecological psychology (Turvey et al. 1981, Michaels and Carello 1981, Turvey 1992, Reed 1996, Heft 2001, Michaels 2000): for example, we say that a certain object is graspable, or that certain obstacle is climbable. However, even when most ecological psychologists commit to this idea, some authors do not consider that affordances (the properties of the environment relative to agents that would be the particular objects of our perception) could be explained this way. On the contrary, some authors claim that affordances, rather than properties of particular objects, should be considered as features of the environment as a whole. In this sense, we would recognize certain features as belonging to the environment without postulating that some objects in particular are the ones that possess or bear those features.

5.3.1 Some advantages of the feature-placing view according to Chemero (2009)

This *feature-placing view* is what Chemero (2001, 2009: 139-40) demands for understanding affordances. He claims that he took this idea from Strawson (1959), and it is called 'feature-placing'. To understand the explanatory power of feature-placing it is best to contrast it with the idea that affordances are properties of objects, what Chemero calls the *object-property view*. How is it possible to differentiate between those two frameworks? Consider two examples: first, when you say that 'my car is dented' you are saying something about your car. Second, when you say 'it is raining' you do not say something about a specific object, but about the whole environment. These toy examples are the difference between the so-called object-property and feature-placing views, respectively.

According to Chemero, in the object-property view one would perceive an object and also the property of which the object is a bearer. There would be different steps for that: first, (a) the agent would perceive the object or entity; second, (b) the agent would know the identity of the object; third, (c) the agent would know what it is to have a property 'x'; fourth, (d) the agent would perceive that this particular object has this particular property. In this sense, an agent would have to follow all steps from (a) to (d) in order to know that her car is dented. According to Chemero, Strawson rejects the object-property view in certain cases in which we do not attribute or recognize some specific properties as possessed by some specific particulars. If feature-placing claims that some features are not possessed by specific particulars, then for placing those features we do not require such an amount of previous knowledge and steps from (a) to (d). Thus, we only need to recognize in a moment a feature of whole situations. For example, when you see that it is raining, you just see it as a feature of a place. This is completely the opposite to perceiving properties of objects, because you do not need to take a look at the whole situation; rather, you need to pay attention to specific particulars to check their properties, like when you see that your car is dented. As Chemero himself claims: "To see this, consider that the "it" in "it is raining" is never the same thing; it refers to a situation (what's going on right here, right now) that will never appear again. We can ask what is dented, but we cannot ask what is raining." (2009: 140).

Following these Strawsonian insights, Chemero claims that affordances would be more accurately defined as features of the environment rather than as properties of objects. This is, the right approach that explains the perception of affordances would be feature-placing rather than the object-property view. As some authors claim, sometimes we do not refer to the specific properties of certain particulars, but to features of places or situations as a whole (the example of ‘it is raining’ should be enough for showing this). Also, as we have seen, one could claim that as it is explained by Chemero (2001, 2009: 139-40), the steps that go from (a) to (d) mean a certain degree of intellectuality that we could get rid of: if ecological psychology implies direct perception, maybe steps (a) to (d) imply such an amount of abstract processing that somehow conflicts with the direct spirit of ecological psychology.

5.3.2 Chemero (2009) and Michaels, Zeinstra and Oudejans’ (2001) experiment

In order to support the feature-placing view over the object-property view, Chemero refers to the experiment of Michaels, Zeinstra and Oudejans (2001) on ball-punching behaviour as an example of how a theoretical commitment could take you to misleading conclusions when you interpret empirical data. According to Chemero, inasmuch as the authors accept the object-property view, the results of the experiment lead them to unsatisfactory consequences: rather than showing how we perceive affordances as features of the environment, they show that when someone perceives an affordance she perceives something about oneself, not something about the environment. Chemero’s target is Michaels’ (2000) phrase “it’s time to flex the elbow” when someone is punching a punching-ball. In sum: Chemero claims that if Michaels, Zeinstra and Oudejans (2001) had embraced the feature-placing view rather than the object-property view, they would not have claimed something as anti-ecological as that one perceives something about oneself (“it’s time to flex the elbow”) when one perceives affordances. As Chemero (2009: 139-140) puts it:

The purpose of this discussion was to counter Michaels’ claim that perceiving ball-punching affordances (as in Michaels, Zeinstra and Oudejans 2001) is perceiving something about oneself, not something about

the environment. This, I argue, is true only if one fails to realize that there is a more primitive way of perceiving the environment involving what Strawson called feature placing (...). Drawing attention to this distinction between placing features and perceiving properties of objects is relevant to the perception of affordances because Michaels (2000) argued that when we perceive ball-punching affordances, we perceive that ‘it’s time to flex the elbow’. This, she argues, is perceiving something more about yourself than about the environment.

For this reason, Chemero claims that the feature-placing view is not committed to the anti-ecological idea that, when you perceive an affordance, you perceive something about yourself rather than something about the environment. In this sense, if a commitment to the object-property view leads to the consequence that we do not perceive something about the environment, the feature-placing view is preferable over the object-property view to ensure the ecological character of affordances.

5.3.3 Chemero’s (2009) depiction of the experiment: a critical analysis

I am going to argue that if we follow attentively Michaels (2000) and Michaels, Zeinstra and Oudejans (2001) there is no trace of any anti-ecological consequence, contrary to what Chemero claims. This is because Michaels understands the previous statement (‘it’s time to flex the elbow’) only on the basis of a distinction between information for perceiving affordances and information related to the motor control of the actions that result from the perception of these affordances. Chemero does not make explicit this distinction in Michaels’ (2000) paper, and quotes Michaels as if she were saying that we do not perceive something external to us when we perceive affordances just because she is committed to the object-property view. So, if we make an effort to understand the reasons that lead Michaels to claim what she claimed, we can conclude that this example, as it is shown by Chemero, is insufficient to say that the object-property approach, when applied to affordances, goes against the ecological spirit of ecological psychology. Thus, in conclusion, if a misquotation of Michaels’ phrase leads to some anti-ecological consequences, this is not enough for us to get rid of the object-property view.

First, it is important to contextualize the discussion. Michaels (2000) discusses Michaels, Zeinstra and Oudejans' (2001) experiment without discussing the object-property view of affordances. The main aim of her paper is to favor the hypothesis that we can draw a distinction between ecological information for motor control and ecological information for affordances. Michaels, Zeinstra and Oudejans (2001) provide empirical support for differentiating between both kinds of information (information for perceiving affordances and information for controlling action), and this is why she refers to this experiment in Michaels (2000). The distinction between both kinds of information is motivated by Michael's acceptance of the main hypothesis and evidence of Milner and Goodale's (1995).

These authors argue in favour of a separation between two kinds of neural visual processes: vision for action and vision for perception. Both processes would be located in different parts of the brain, and they would process different kinds of information. Furthermore, Milner and Goodale's (1995) distinction is a differentiation in neural terms (they refer to the ventral and the dorsal pathway; the first would sustain the neural processes of perception and the other one would sustain the neural processes for action). For independent reasons, Michaels (2000) accepts Milner and Goodale's distinction, but not acritically: she wants to offer an explanation of the different kinds of information not at a sub-personal, neural level, but within an ecological, personal scale. This is why she ran an experiment with Zeinstra and Oudejans (using a punching ball) to provide empirical evidence that would show that there are two different kinds of information, such as Milner and Goodale (1995) claimed, but also operating at an ecological, personal scale. This is why they claim that there is information for action and information for perception: in the ecological jargon, information for motor control (action) and information that specify affordances (perception). So, once she differentiated between information for perceiving and information for acting within an ecological scale, she claimed that their experiment on ball punching showed that, based on this distinction, there was not only information that specified the available affordances in the environment, but also information that specified something *related to the motor control of the action* (this is, something the action that happens once we perceive affordances). The difference is the following: the information that specifies the presence of affordances that demand certain action in the environment is as ecological as usual; but, on the contrary, once affordances are perceived, it is possible to detect certain information that would help us exert the action in a proper, controlled

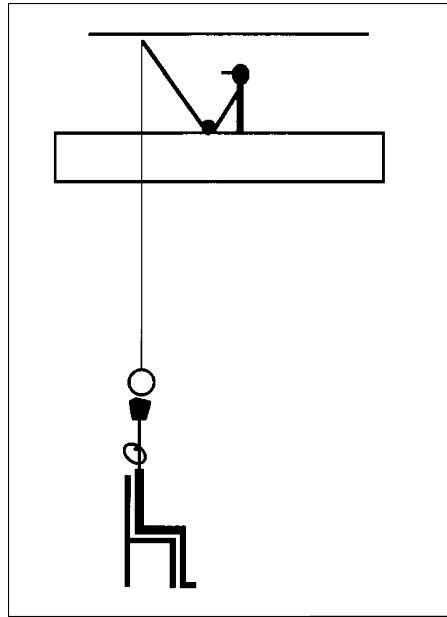


Figure 5.1: An illustration of the setting in Michaels, Zeinstra, and Oudjeans (2001).

way if we take advantage of them. This is clear in the case of the experiment of Michaels, Zeinstra and Oudejans: depending on how the punching ball moves, we would detect certain affordance of punchability (see Figure 5.1); but once we exert the action, there is other kind of information that, even though it is ecological, it is related not to the affordance but to motor control. Hence the difference between information for perceiving and information for acting. Regarding the latter, this is why there was information that specified something about oneself and that would be expressed in the phrase “it’s time to flex the elbow”: because in the experiment they focused on variables that were different from the original experiment, which merely consisted on detecting opportunities for action (Lee et al. 1983) or to any other variables. To account for the information for action, they analyzed another variable (variable $r[o]$) instead of the variable $t[au]$, because this variable specified the time-to-contact information (see section 3.2.7), not the information that allows agents to perform certain action under certain degree of motor control. Thus, only regarding the parameters that Michaels, Zeinstra and Oudejans (2001) considered in their experiment, and only taking into account the distinction between the two kinds of information, Michaels claimed that “[t]here is no property, as it were, to be perceived” (Michaels 2000: 248), that –we could add– *would help us to control our actions*.

This statement should be read on the basis that she was distinguishing between information for perceiving and information for acting, and solely on this basis we can understand the experiment in which they found specific information for acting (this is, the information that allowed for the aspects *related to the motor control of the action*). If someone still remains unconvinced, here is a quote of Michaels' regarding the experiment: "*the information is likely to be different; the properties related to the control and coordination of the activity and the informational variables that specify them may be different from the properties and associated variables that are detected when one merely perceives objects and events*" (Michaels 2000: 252, my italics). The same distinction is explicitly addressed in the reply of Michaels et al. (2001: 230).

In sum, the conclusions of this experiment do not exclude the idea that we perceive affordances as if they were properties of objects and events in the environment. In fact, if we read the experiment under the light of the distinction between information for acting and information for perceiving, it only shows that Michaels, Zeinstra and Oudejans (2001) depicted an ecological way to explain what kind of information is for acting; this is, they focused on which information would allow ball-punchers to structure their motor control of the act of punching, but this does not mean that this kind of information is the information for perceiving affordances. In fact, Michaels, Zeinstra and Oudejans (2001) are focused on what information allows us to take advantage of the affordance (the motor control aspect) rather than on the information that we can detect in order to perceive it (the perceptual aspect). In this sense, they would be focused not on how we perceive affordances, but on how we take advantage of them (the motor control aspect).

So, once that it is clarified what Michaels (2000) meant with "it's time to flex the elbow", we can understand that this statement does not attack the ecological, information-detecting aspect of the ecological approach, such as Chemero tried to show. Taking the insufficiency of Chemero's argument to prove that the object-property view leads us to anti-ecological consequences, we can still accept the orthodox ecological approach and support the object-property view at the same time. The conclusions of Michaels (2000), once they are contextualized, do not affect this general, well-accepted view of considering affordances as properties of objects.

5.3.4 Conclusion: a misinterpretation of the experiment

In conclusion, if Chemero's (2009: 139-40) view of the problematic aspects of the object-property approach is solely based on a non-contextualized analysis of Michaels' (2000) idea that (besides our perception of affordances) we *sometimes also* perceive information about ourselves in order to control our actions, I believe we can refuse Chemero's conclusion if we pay attention to the distinction between information for perceiving and information for controlling our actions that is also present in Michaels (2000). Also, Michaels' (2000) thesis of the separation between information for perceiving and information for (controlling our) actions is not the only one within the ecological approach that is committed to the object-property view of affordances. Reed (1996), Turvey et al. (1981) and some other classical authors would not necessarily be committed to Michaels' (2000) distinction to support the object-property view. It is strange that Chemero linked the object-property view with the results of Michaels, Zeinstra and Oudejans (2001) without paying attention to other authors that support the object-property view. In fact, Michaels supports the object-property view but, as many authors do, she considers that affordances can be properties of objects *and also of events* (Michaels et al. 2001: 230), which would be in line with the idea that affordances would also be features of the environment. So I think that appealing to Michael's (2000) conclusions is not sufficient to reject the object-property view in favor of the feature-placing view, such as Chemero does.

5.3.5 Object-property vs. Feature-placing: is it really a debate at all?

Furthermore, I think this dichotomy between the object-property view and feature-placing view is not problematic, at least within the ecological approach. These two expressions ('features of a place/environment' and 'properties of objects') can be found in the classic writings on affordances and ecological psychology with no apparent conflict or contradiction. This means that there is no serious ontological commitment within ecologically-oriented cognitive scientists with any of these views. In fact, Gibson (1979/2015: 132) claimed that "[t]he central question for the theory of affordances is not whether they exist and are real but whether infor-

mation is available in ambient light for perceiving them”. It seems that ecological psychologists were not concerned with offering an exhaustive metaphysical account of affordances since the very beginning. They considered affordances as opportunities for action, but they do not seem to hold a metaphysically elaborated notion of ‘property’ or ‘feature’ that sustains their empirical views; on the contrary, they use both for explaining how we perceive affordances. For example, first, we have the object-property view in Gibson’s (1979/2015) original work when he claimed that certain substances afford ingestion (1979/2015: 129), elongated objects afford wielding, rigid objects with edges afford cutting (1979/2015: 125), or even with the claim that what we perceive when we look at objects are their affordances (1979/2015: 126) (using the term ‘affordances’ clearly as a property of objects, and ‘objects’ as the bearers of those properties). On the other side, Gibson might have been defending the feature-placing view when he claimed that:

The *possibilities of the environment* and the way of life of the animal go together inseparably. The environment constrains what the animal can do, and the concept of a niche in ecology reflects this fact. Within limits, the human animal can alter the *affordances of the environment* but is still the creature of his or her situation. (Gibson 1979/2015: 135, italics added)

Here, affordances are features of the environment as a whole, not merely properties of objects. But, despite the use of both kinds of expressions, there seems to be no ontological tension at all in Gibson’s writings. In fact, both views are intertwined in the general view of affordances offered by Gibson’s main work: “The medium, substances, surfaces, *objects, places* and other animals have affordances for a given animal” (Gibson 1979/2015: 134, italics added). Places in general and objects in particular possess affordances. There is no such thing as a fine-grained distinction between the object-property view and the feature-placing view in the original formulation of affordances, and the consequences of mixing both kinds of expressions seem not to be as relevant as Chemero claims, once we pay attention to the use of the term ‘affordance’ in Gibson’s work. In fact, this didn’t seem to be a problem in the history of ecological psychology either, if we pay attention to other key contributions.

There is more to say about the distinction between features and properties of objects. The difference depends on what we understand by ‘feature’ and ‘object’, and to which aspect (the object in particular or the situation in general) we attribute the property or feature. I believe that ecological psychologists did not find a fine-grained distinction between both terms; they do not consider them as antithetic. In this vein, we can claim that *sometimes* an affordance could be a property of an object (a knife, for example) and a feature of an environment at the same time. This is so because, if we consider that a place, situation or given environment affords something, it could be because some objects that are part of that environment possess the property of being affordable. Sometimes, that one object determines our perception of the whole environment. Think, for example, of a situation in which one travels to India and goes for a walk every day to the same place. Imagine that, for her, this is a quiet and pleasant place to walk. One day she discovers a tiger or any other kind of dangerous animal hidden in the bushes, and, suddenly, the presence of the animal as a dangerous element intoxicates the whole situation. Since that moment, that place is not a quiet and safe place to her, but a dangerous one. ‘It is dangerous’, we would say, depicting the place in which that woman used to go for a walk. The sole presence of a single element that is dangerous can extend this feature to a whole place or situation. Following this, I claim that sometimes what is considered as the property of an object can determine our perception of some environments. In contrast, I recognize that it is true that some other times, as Chemero claims following Strawson, the ‘it’ in ‘it is raining’ does not refer to an object like the ‘it’ in ‘it is dented’.

In my opinion, there are plenty of examples of the first kind. We can say, for example, that the environment is windy and, because of that, it affords kiting. In fact, this affordance of kiteability could be related both to the environment as a whole or solely to the air. For example, Gibson claimed that the air affords a lot of things, like breathing, visual perception, locomotion, etc. (Gibson 1979/2015: 122). Think of these two different expressions: ‘this environment affords kiteability’ / ‘this environment is kiteable’ and ‘this wind is kiteable’ / ‘This wind affords kiting’. It seems that the difference between the way we place features on the environment and the way we talk about properties of objects does not amount to an insormountable gap or problem that would force us to choose between one view as if it always were the most accurate description. In the same vein, imagine you are watching a football match and suddenly the striker is alone with the ball in his feet

in front of the goalkeeper. I believe that there is no substantial difference between saying ‘that situation affords kickability’ / ‘that situation was the best one for kicking’ or that ‘that ball is kickable’ / ‘that ball affords kickability’. No significant difference can be found if we compare both kinds of statements. In conclusion: it seems that, sometimes, even when certain parts of the elements that conform a given environment or situation possess certain affordances, we can attribute them to the whole environment. We say that an environment is windy even when we know that this property depends solely on an element of that environment (the wind), but we do not see any category error or mereological fallacy when we use that vocabulary.

As we have seen, we can say that certain environment is hostile or dangerous when there is only one element that is dangerous, but we can also say that it is dangerous when there are many dangerous objects. We can ask for the exact source of this hostility, but there is no problem for us to acknowledge that a certain environment includes certain feature independently of which objects located in that environment are the bearers of that property. And I think that this use of our vocabulary related to affordances applies in the same way. So, in conclusion, I believe that sometimes (and only sometimes) there is no substantial distinction when we use the object-property vocabulary and the feature-placing vocabulary regarding affordances, because we would explain the same aspects of perception either if we understand affordances as features of the environment or as properties of objects. This leads us to a conclusion: if there is not a metaphysically sophisticated notion of ‘property’ or ‘feature’ in the ecological vocabulary in order to define affordances, then this counts in favour of the main aim of this dissertation, which is that affordances are dispositions understood from an anti-factualist, Rylean way. This approach keeps the explanatory power of affordances and it is a very economic version of dispositionalism if we compare it with Platonic dispositionalism. In conclusion, it seems that anti-factualist dispositionalism is the best candidate to characterize affordances. The rest of the chapter develops this idea.

5.4 Ecological approaches to the ontology of affordances

Affordances are the objects of perception for ecological psychology (Gibson 1979, Richardson et al. 2008). Some authors treated them also as properties of objects that are related to the (properties of) agents that are able to perceive them (Turvey 1992, Reed 1996, Chemero 2009). We say that we are able to perceive graspability when we are able to perceive the possibility of grasping something; in the same sense, we say that we perceive climbability when we perceive the possibility of climbing something. In these two situations there is an affordance (the affordance of climbability or the affordance of graspability) that is related to agents that can perceive them (agents with opposable thumbs that allow them to grasp objects and agents with long enough legs for climbing). In conclusion, affordances are features of the environment that can be perceived by particular agents. Also, these agents are able to perceive possibilities for action and they can respond with a pertinent action to the demanding property of the environment.

Being a property of the environment and *also* a property related to agents at the same time is the distinctive feature of affordances (Gibson 1979), and this “apparently contradictory character of affordances” has been taken as a problem for different authors (see Heft 2001:132-5). Depending on how we emphasize each aspect, we can find different interpretations of how affordances work and which is their nature. This section depicts the three main approaches to the ontology of affordances (see Figure 5.2): Turvey’s (1992) dispositional approach, Reed’s (1992) evolutionary approach and Chemero’s (2009) relational approach.

Turvey (1992) offers a dispositional account of affordances in which he connects the role of affordances to prospective control within a dynamicist and a materialist background. According to Turvey, there is a nomological relation between the affordance (the property of the environment) and the effectivity (“the complementing disposition of a particular animal”, Turvey 1992:179) such that when the right properties are joined or juxtaposed in the same environment, they can trigger a manifestation of that affordance. Turvey explicitly claims the following: “an affordance is not defined (i.e. nonexistent) without a complementing animal property and, in like fashion, an effectivity is not defined (i.e. nonexistent) without

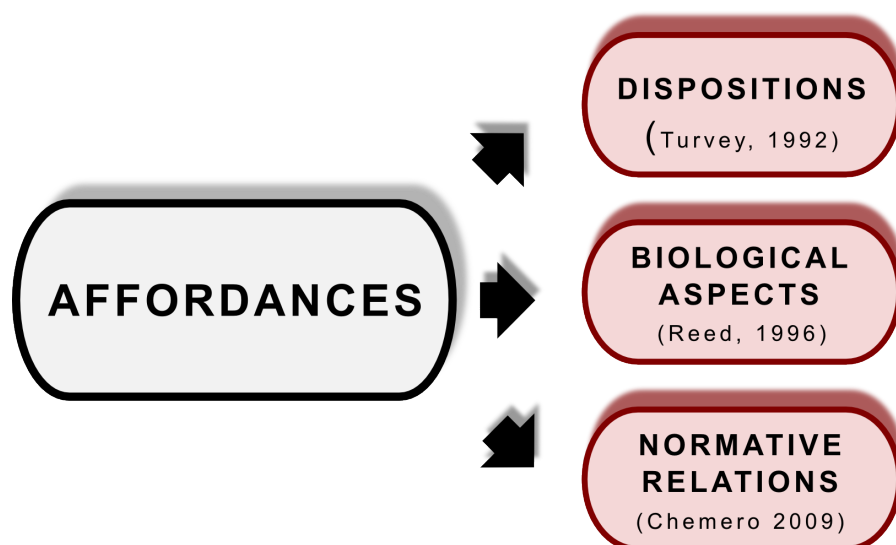


Figure 5.2: Main approaches to the ontology of affordances.

a complementing environment property” (Turvey 1992: 179-80). As we see, Turvey (1992) emphasizes the relational, reciprocal or mutual character of affordances and he makes the existence of the affordance dependent on the existence of its effectivity and *vice versa*. This relational character dependent of this mutuality between affordance and effectivity is what leads Turvey to claim that he supports a dispositional approach to affordances.

Reed’s work (1996) is a reaction against this view. Reed’s project (1996) was to include ecological psychology in biology as a branch of evolutionary theory, showing that this approach (and particularly, the concept of affordance) was the best candidate to explain how animals are able to cognitively evolve through the perception of the affordances that are present in their environments. For Reed, “affordances are the *aspects of a habitat* that can serve to regulate an animal’s behaviour” (Reed 1996: 38). Then, affordances are properties of the environment that exert selection pressure on animals, and this means that affordances exist independently of the existence of animals and their reciprocal properties. Reed supports this asymmetrical character of the relation between affordances and agents biologically and developmentally, and he particularly explains the emergence, existence and functional character of affordances *via* selective pressure: the selective pressure of their environments affects animals, and this shapes them both cognitively and biologically. And if we take into account that affordances can be understood as elements or properties whose affection to animals is cognitive *and* biological, Reed

concludes that animals cannot exist without environments, but environments can continue existing without animals (Reed 1996: 27-39), *contra* Gibson's main *dictum* (1979/1986: 8). In that sense, contrary to Turvey, affordances (the properties of the environment) do not depend on animals (or their effectivities) to exist (Reed 1996: 26, Chemero 2009: 138-9), and this is how Reed emphasized the realist aspect of affordances rather than the relational or reciprocal aspect.

Chemero (2009) goes beyond the two previously mentioned authors. Although he does not support a dispositional view of affordances, he claims that Reed's (1996) view that affordances exert a selective pressure on animals is contradictory with the idea of ecological niches as they were depicted in the early ecological theory (Gibson 1979). This is so because, according to Chemero (2009), Reed's (1996) point of view does not respect the mutual character and reciprocity of animals and environments in the ecological view⁴ (Chemero 2009: 146). He recalls the idea of 'ecological niche' as the biological basis for explaining affordances (Chemero 2009: 146). Niches are the basis of the ecology of cognition because niches are the basic unit of analysis: the organism-environment unit, as Gibson (1979) claimed. So, if the basic unit of analysis is the niche (understood as the product of all functional / ecological relations between agents and their environments), the mutual or reciprocal character of affordances must be something that should be emphasized (Chemero 2009: 147). This is what makes ecological psychology 'ecological': cognition is not something that happens inside agents, but something that happens in a particular space and time. And affordances are key to understand this relation, because niches are the product of the affordances and the subsequent actions of agents. All those relations constitute the cognitive world of agents. In conclusion, affordances' existence is not independent of the existence of the animals that can perceive them because, according to Chemero (2009: 146): "[t]hey arise along with

⁴*Contra* Chemero's (2009) accusations against Reed's (1996) emphasis on realism, it would be fair to say that there are some paragraphs written by classic authors that would count in favor of Reed's realistic approach, such as the following: "In contrast, the *affordance* of something is assumed *not* to change as the need of the observer changes. The edibility of a substance for an animal does not depend on the hunger of the animal. The walk-on-ability of a surface exists whether or not the animal walks on it (although it is linked to the locomotor capacities of that species of animal, its action system). The positive affordance of an object can be perceived whether or not the observer needs to take advantage of it. It offers what it does because it is what it is. The uses of things are directly perceived, as Lewin and Koma sometimes realized, but this is not because of a force between the object and the ego in the phenomenal field, as they believed; it is only because the substance and the layout of the object are visible and these determine its use" (Gibson, unpublished manuscript dated from 1976, quoted in Reed and Jones, 1982: 408).

the abilities of animals that perceive and take advantage of them”. As Chemero (2009) underlies, with the idea of ecological niche in view, claiming that both do not emerge together is something that goes against the very ‘ecological’ aspect of ecological psychology.

Although there are more approaches that provide an original point of view on the ontology of affordances (Stoffregen 2003, Kadar and Effken 1994), the ones briefly depicted above are the most prominent and they show an apparent tension between realism and mutuality (Heft 2001: 132-5): Should the existence of affordances be considered as independent from the existence of the agents that perceive them? Do affordances arise together with agents? In which sense the independent existence of affordances could jeopardize their mutual or reciprocal character?

The next section deals with an analysis of these three approaches, their flaws and advantages. I conclude that these three approaches are unsatisfactory for explaining behaviour and that a dispositional analysis from a Rylean perspective is the most suitable framework for understanding affordances.

5.5 Dispositionalism and the classic views

5.5.1 Turvey (1992) and dispositions

According to Turvey (1992), he supports a dispositional approach because of the complementarity or mutuality between two properties: the affordances of the environment and the effectivities of the agents. But this is not enough for a theory of affordances to be dispositional: in fact, Turvey’s (1992) approach is tropist rather than dispositional. As we have seen in 4.3.1, tropes are not the most suitable candidates for characterizing dispositions, because they cannot satisfy the requirements of the central platitude: “in cases where the manifestation of a thing’s disposition never comes about, there will be nothing for the relevant trope to be related to. Therefore, by accounting for dispositional directedness in terms of a genuine relation, the trope theorists will be left with cases in which that relation has only one *relatum*” (Tugby 2013: 457, my italics). In a world without water, the trope disposition of a given sugar cube in the desert would not have a relatum to be directed

to, and this goes against the central platitude. Every dispositionalist would agree with the idea that sugar cubes are soluble even if they are in a world without water, but tropism does not allow for this central claim to be true. Turvey (1992) shares the same problems of tropism when he claims that “an affordance is not defined (i.e., nonexistent) without a complementing animal property and, in like fashion, an effectivity is not defined (i.e., nonexistent) without a complementing environment property” (Turvey 1992: 179-80). Thus, Turvey’s view of dispositionalism cannot account for the central platitude, and this make his proposal an unsuitable one for explaining affordances from a dispositional approach.

5.5.2 Turvey (1992) and Chemero (2009): similarities

Up to this point, both Chemero (2009) and Turvey (1992) share a common view: First, Chemero thinks that affordances are not properties of the environment, but of the agent-environment system. Those properties, then, are relational, because they depend on each element of the system to exist –the abilities of the agents and certain features of the environment (Chemero 2009: 150). But this claim is practically identical to Turvey’s view: “(...) an affordance is not defined (i.e., is nonexistent) without a complementing animal property and, in like fashion, an effectivity is not defined (i.e., is nonexistent) without a complementing environment property” (Turvey 1992: 179-80). Gibson remarked that an affordance is “equally a fact of the environment and a fact of behavior” and that it “points both ways, to the environment and to the observer” (Gibson 1979/1986: 129). The similarities are the following: both claim that there are properties of the agent-environment system that come in pairs, and this means that they are directed to each other and depend on each other to exist. This view is similar to the trope view explained on page 79. I think the dissimilarities between Turvey and Chemero are merely semantic: effectivities can be understood as abilities, because effectivities are “the causal *propensit[ies]* for an animal to effect or bring about a particular action” (Turvey 1992: 179, italics added), and both Chemero and Turvey understand that the term ‘affordance’ points both to the environment and the agent: this is, that affordances are properties that can be properly understood when a pair of elements (some from the agent and some from the environment) are reciprocally combined. We can restrict the term ‘affordance’ just to the element of the environment in the system or, on the contrary, to the combination of the two reciprocal properties.

This is similar to the views of Gibson and Chemero.

What is important here is that the label may differ, but the concept of mutual dependence between the property of the environment and the features of the agent is completely similar, because what matters is the relation between the two elements in the system. In this sense, Turvey's affordances are not dispositions, but tropes: according to Turvey, his rejection of Platonism implies a rejection of universalism. Turvey does not distinguish between kinds of universalism: he only distinguishes between Platonism and nominalism, and claims that he rejects the idea that there could be properties without bearers (Platonism) or bearers without properties (nominalism). As he claims, "[t]here are only propertied things; neither properties nor individual things are real independently of one another" (Turvey 1992: 176). Thus, his rejection of Platonism includes a rejection of universalism (because he rejects the existence of an universal dispositional property directed to an universal manifestation), which makes his position a tropist one. Furthermore, Turvey's (1992) approach to affordances is similar to tropism because of the way in which he individuates affordances: instead of individuating them through their directedness towards certain manifestation, like Aristotelianism or Platonism, dispositions are individuated towards their reciprocal dispositional partners. In the case of Turvey (1992), dispositions are properties that come in pairs, and every disposition of the environment (an affordance) is complemented by a disposition of an agent (the effectivity). These properties are mutual or relational (Turvey 1992: 176), and a disposition only exists when its complementary disposition or relevant n-tuple exists. Turvey's (1992) approach is close to a kind of tropism. And this would be problematic for Turvey (1992), because his approach would inherit the problems of tropism. So Turvey, just like Gibson and Chemero, would not be a dispositionalist –at least in the technical, sophisticated sense of the recent specialized literature (Mumford 1998, Molnar 2003, Martin 2008, Tugby 2013).

5.5.3 Chemero (2009) and dispositions

Chemero claims that affordances cannot be dispositional properties because, as he understands dispositions, they are properties that *unavoidably* manifest under the right circumstances (Chemero 2009: 145-146). Rather, he claims that affordances should be conceived as relational properties because they are normative and they

are the relation of certain ecological elements of the environment and the abilities of agents. However, dispositionalists of all kinds (Ryle 1949, Mumford 1998, Molnar 2003) also include abilities like speaking french or playing a musical instrument as dispositions, and Chemero's critique of dispositionalism does not seem to be an argument against this. This is because he only considers as dispositions those that work in a lawful way, like solubility, in which there are physical or chemical unavoidable reactions for non-agential entities. There are dispositions for which the enabling circumstances are always present and they do not necessarily need to manifest (Mumford 1998, Molnar 2003, Martin 2008, Tugby 2013): a Chinese porcelain vase can be fragile at every moment since it was created, and this fragility does not need to ever manifest. In fact, it can suffer several hits and still not break. It could be fragile through time, even if it never breaks. In that sense, Chemero is not paying attention to more subtle and different ways of understanding dispositions than his view. For him, contrary to mainstream dispositionalists, abilities are not dispositional because they are normative, but he does not discuss examples in which dispositions are equated with abilities, like dispositionalists accept (see Ryle 1949/2009: 103 or Molnar 2003: 95).

5.6 An non-factualist, Rylean dispositionalism for understanding affordances

If the previous analysis is on the right track, the most parsimonious candidate for a dispositional theory of affordances is the Rylean, non-descriptivist approach to dispositions (see 4.4) *contra* the factualist view (which ends with a commitment to Platonism). As we have seen, non-factualism does not lead us to claim that dispositionalism is about describing the nature of some actually existing properties: it is just one kind of vocabulary that warrant us to make relevant inferences in order to depict certain behaviours in a more detailed way (see section 4.5 on page 95). As we saw, Platonic dispositionalism leads to a thicker ontology due to its commitment with transcendent universals in a transcendent realm. And, as a consequence, this is the less economic and, as a consequence, the less suitable solution if one endorses ontological naturalism.

Rylean non-factualism seems a right stance in terms of economy and explana-

tory power to be used as a framework for categorizing affordances. Rylean dispositionalism keeps the explanatory power without enhancing our ontology. Within this non-factualist dispositionalism, the concept of ‘affordance’ would work as a notion that warrants how to explain the behaviour of agents when they encounter certain possibilities to perform actions within their niches (this is, the layout of their environment), just like another dispositions work as inference tickets in the Rylean view (Ryle 1949/2009: 105). When we claim that a certain agent perceives the ‘scalability’ of an obstacle or the ‘graspability’ of certain object, what we are doing is to assure that certain range of behaviours of grasping and escalating can be derived from the perception of certain elements of the environment (the existence of an obstacle of a certain size or the existence of an object with certain features). The vocabulary of affordances allows us to infer certain possibilities for acting under the right conditions, and it can be expressed in conditionals or in different law-like statements. Thus, the concept of ‘affordance’ allows us to express commitments to the consequences of the possible actions that follow from saying that something affords the performance of certain actions.

The main reason is that, as Ryle suggested, we do not need to understand dispositions (and then affordances) in a factualist way in order to keep the explanatory power of this vocabulary. As such, the non-factualist approach would not be affected by strict metaphysical commitments inasmuch as it is not concerned with providing strict conditions in favour of the existence of those properties as if they were occupying a *locus* in our natural world, such as factual features do. For the non-factualist, the aim of analyzing our dispositional vocabulary is not to discover which entities or properties make up or shape the ontology of our reality. The aim of the non-factualist approach is more humble: it is just to understand which are the right circumstances in which it is permitted to use our dispositional vocabulary for explaining certain behaviours, tendencies and (re)actions. In this vein, the conclusion is that sometimes there is no need to postulate the existence of a (hidden) force or power that is made explicit by the dispositional term and that explains the attribution of the property, because not all properties are (hidden) forces (just like there is no *virtus dormitiva* or *virtus migrativa*⁵). Some tendencies, dispositions or abilities may refer to the same processes (like ‘flying south’ and ‘migrating’), but we use one term or another depending on how wide and complete are our explanations of the same actions or processes (see 4.4.1). Migrating is a disposition, a skill, not

⁵This was also explained in 4.4.1

a witnessable or an unwitnessable act; which means that there is no hidden force behind the actions that explains why a bird is migrating.

However, as we have seen in section 4.4.2 on page 93, there is a commitment undertaken by non-factualist dispositionalism, which is the central platitude. But, as we have seen, the central platitude is maintained within the non-factualist view. Also, it can accommodate the intuitions of both intrinsicness and extrinsicness and remain neutral with respect to both metaphysical theses. This is why an anti-factualist view regarding dispositions is still dispositional: because it allows for an explanation of the tendencies and the behavioural changes of agents. We do not need to attribute a disposition in order to explain the causal behaviour of objects and agents (understood as a hidden property, like a *virtus dormitiva*), but this does not mean that we cannot have a reason to attribute certain tendencies to an agent, and we do it because they help us to understand certain behaviours in a more accurate way, just as Ryle showed.

An accurate non-factualist analysis of affordances as dispositional properties would inherit the advantages of anti-factualist dispositionalism: we would be able to attribute dispositional properties to agents in order to explain how they react to affordances without postulating any occult force, in this case something like a '*virtus affordativa*', for example, to guide the behaviour. In doing so, we would not need to support strict conditions of possession of that supposed force, like intrinsicness or extrinsicness, and this would save us from Platonism. A non-factualist and dispositionalist explanation of affordances would then be much more economic. Also, there are fewer problems related to the explanatorily power of dispositions: a factualist dispositional approach does not explain how it is possible to conceive the connection between the existence of an eternal realm with eternal and necessary dispositional properties that transmit their power to every token dispositional property in our world. It is neither economic nor explanatory because factualist dispositionalism, and especially Platonism, raises a higher number of questions than the ones it answers. And if some explanation leaves more questions unanswered than the ones it answers, it is clearly a non-desirable explanation.

The non-factualist philosopher claims that the aim of using a dispositional vocabulary is not revealing the existence of hidden forces that occupy a space in our ontology just like bodies or objects do, but offering a parsimonious explanation of the behaviour of the agents that populate our world. In this sense, the concept

of ‘affordance’ would play the role of being a term that we use when we perceive certain possibilities for action in our environment, and, attending to the grammar of this concept, it is useful to understand which are the ways in which we should use it; this is, the key point consists in knowing when it is pertinent to use the concept in order to offer a richer narrative of our behaviour. Of course, this is not incompatible with saying that affordances do not necessarily need to manifest, following the central claim.

5.7 Conclusion

In conclusion, as we have seen, non-factualism is the most parsimonious candidate in order to offer a fully-fledged explanation of our dispositional vocabulary (4.4). Since there is no tension within ecological psychologists regarding which metaphysical notion is the best to characterize affordances, this means that the only important thing is to characterize them with a candidate that keeps the explanatory power of affordances while offering an economic account of them (see 5.3). And this leads me to conclude that affordances could be understood as dispositions from an anti-factualist approach without losing parsimony or explanatory power (see 5.6). Now two questions remain unanswered: first, how to account for the normativity of affordances within an anti-factualist perspective; and second, which kind of content we possess when we perceive affordances. In order to answer the first question, Chapter 6 explains my view on normativity from an anti-factualist and anti-descriptivist perspective. Chapter 7 applies the main ideas of Chapter 6 to enactivism, and Chapter 8 explores whether affordances are normative. Later on, the second question is answered in two chapters: Chapter 9 explains the debate between Dreyfus and McDowell on the relation between experience and reason (see a briefer version of this debate in section 6.2.3) as a framework for explaining why, as Chapter 10 argues, a minimal version of conceptualism (the idea of intuitions in McDowell 2009) is the best candidate to account for our experience of affordances. Basically, this minimal conceptualism avoids the Dreyfusian myth of the mind as detached as well as Givenness. A more detailed analysis of how to avoid Givenness from a minimal conceptualist perspective can be found in the Appendix A.

Chapter 6

Normativity

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6.1 Introduction

We could say that normativity is pervasive. There are norms for nearly everything in this world, from keeping the appropriate distance among people in an elevator (Rietveld 2008) to abstract mathematical calculus. The normativity I focus on in this chapter is of the first kind. There are plenty of philosophers and cognitive scientists who claim that our unreflective or embodied and situated behaviour is normative. Here¹ I discuss some of their ideas and I also offer my own view on the issue, strongly influenced by authors such as Ryle (1949/2009), McDowell (2007a, 2007b, 2013) and Wittgenstein (1953). This chapter will help us to understand if our ways of perceiving and taking advantage of affordances are somehow normative.

After presenting the main features of normativity in this chapter, I apply in Chapter 7 my ideas on normativity to enactivism, as an example of how normativity is (mis)understood within an influential anti-representational, embodied and situated approach to cognition. Later on, in Chapter 8, I analyze how some authors (especially Chemero 2009) claim that affordances are normative without taking into account some aspects that I consider essential for understanding normativity, especially the Wittgensteinian distinction between ‘it is correct’ and ‘it seems correct to me’ (see 6.2.6.1). Both the enactive approach to normativity and Chemero’s (2009) analysis of the normative character of affordances share a factualist and descriptivist approach to the issue (see 6.3) that lead them to unsatisfactory consequences regarding normativity (see 7.3 and 8.3). But first of all, let’s discuss the main features of normativity.

6.2 What is normativity?

I understand normative practices as rule-bound and socially-mediated actions (see 6.2.6). My commitment to the social character of norms derives from the strong arguments offered by Wittgenstein, in his *Philosophical Investigations* (1953), against the intelligibility of a non-social agent establishing and following its own norms

¹The main ideas of this chapter are taken from section 2 of Heras-Escribano and Pinedo(2015). Are affordances normative? *Phenomenology and the Cognitive Sciences*. I am especially thankful to Neftalí Villanueva, David Bordonaba, Víctor Fernández, Andrés Soria, Juan José Acero, Julian Kiverstein and John McDowell for their fruitful comments and discussions.

(see 6.2.6.1, 6.3 and 7.3). In the following subsections I develop the features for making sense of normativity as an essential feature of the embodied and situated behaviour of rational beings.

6.2.1 Behaviour, conditions of satisfaction and correctness criteria

When an agent follows a norm unreflectively, that agent must be capable of exercising rationality. This means that a rule follower (like any agent that performs an action) is trying to satisfy certain conditions. Every proper action must satisfy a goal (in this sense all actions are goal-directed). However, to fit within a normative practice, the agent's actions must be described as also possessing correctness criteria.

All goal-directed behaviour bears conditions of *satisfaction*. The difference between success and failure exhausts such conditions. However, not all goal-directed behaviour has *correctness* criteria. Correctness criteria determine, among all possible kinds of ways of satisfying a goal, those that are the *right* ways. In the case of stimulus-response behaviour, there is no way to choose which kind of answer is the right one because there is only one kind of answer that satisfies the conditions of satisfaction. Normative practices do not only require the satisfaction of certain conditions in order to achieve a specific goal, but need an extra element also: that goal *must* be fulfilled in some special way –that is, it must be performed under specific correctness criteria. Among all the ways that can satisfy the conditions imposed on that goal-directed action, some ways are the *right* ones. Performing the right or the wrong action is defined according to their specific correctness criteria.

Thus, being regulated with the environment only requires developing, for example, stimulus-response behaviour, because being regulated is a goal-directed behaviour that fulfils certain conditions of satisfaction. Normative, rational or intelligent practices are goal-directed, too, but they also require the application of the correctness criteria. As Ryle (1949/2009: 17) explains it:

The well-regulated clock keeps good time and the well-drilled circus seal performs its tricks flawlessly, yet we do not call them 'intelligent'.

We reserve this title for the persons responsible for their performances. To be intelligent is not merely to satisfy criteria, but to apply them; to regulate one's actions and not merely to be well-regulated.

In conclusion, normative practices usually include the conditions of satisfaction for achieving goals *plus* the correctness criteria that specify the right or wrong ways to fulfil them. Those correctness criteria and their applications discriminate intelligent or rational (which does not amount to intellectualized) actions from non-intelligent or non-rational ones, and they also make the agent responsible for his/her actions (because the agent has exercised critical faculties in order to apply those criteria to achieving the goal). This requirement explains how normative practices are agential, sensitive to their environment and flexible.

6.2.2 The agential level

Normative behaviour is located at the agential or personal level. When we claim that a practice has been correctly performed, we attribute that correctness to the actions of the agent. Not to do so would be to fall into the mereological fallacy (Bennett and Hacker 2003), a kind of category mistake consisting on attributing psychological predicates (that should be applied to the agent as a whole) to the parts that constitute the agent. Just as stomachs do not eat lunch or lungs do not smoke cigarettes, brains (or minds) do not decide to act in a certain way or, in general, they do not follow norms. Psychological, normative predicates are attributed to the agent as a whole because the agent, and not just a part of it, is responsible for the actions performed and because features of the environment are relevant for the agent and not for any of its proper parts. Therefore, we say that someone, and not just her brain, is intelligent or skilful. The authorship of the action lies exclusively with the agent. The responsibility for the success of the action depends on the agent's application of the correctness criteria. This is what Ryle meant with the phrase 'We reserve this title ['intelligent'] for the persons responsible for their performances.'

One clear example that can help us understand what I mean by normative and rational practices is playing football.

When receiving the ball in the middle of a match, a football player must score or assist in order to win the game. To achieve this, a player exerts her skills the best way she can *under specific correctness criteria* (in this case, made explicit by the rules of football through their application). The player, while coupled with the environment, perceives the best opportunity that allows her to perform the *right course of action*. What Ryle meant with the claim that acting normatively is ‘not merely to satisfy criteria, but to apply them’ is this: a person must find the best way to satisfy the conditions and to apply the criteria at the same time. I would like to make a stronger claim than Ryle’s: sometimes, satisfying the conditions and applying correctness criteria can be mutually independent. Football can be a good example to show such mutual independence. First, imagine a very skilful defender whose admired tackles almost systematically succeed in satisfying the goal of taking the ball away from the opponent team’s forward... except when the world does not collaborate and that forward is Zidane. His tackle deserves positive normative appraisal even when it fails against Zidane and, hence, does not satisfy his goal as defender. Second, imagine a very poor striker kicking the ball randomly but scoring after the ball gets deflected by hitting one of the opponent’s back. His scoring does not deserve normative appraisal, but he succeeds in satisfying the goal of scoring. Sometimes, it is neither necessary nor sufficient to satisfy the goal to follow a rule, and it is neither necessary nor sufficient to follow a rule to satisfy the goal.

6.2.3 Dreyfus and McDowell on the relation between norm following and rationality

The case of football was also used by Merleau-Ponty (1942/1963) as an example to underline these normative and embedded practices. Dreyfus has recently brought up this same example in his discussion with McDowell on the relation between skilful embodied coping and rationality (Dreyfus 2007a, 2007b, 2013, McDowell 2007a, 2007b, 2013) (see Chapter 9, specially the introductory section 9.1 on page 181). Dreyfus uses this Merleau-Pontyan example to show that our experiential states (perceiving and acting) are not rational or conceptual, and yet they are normative (he claims, contrary to us, that a looping relation between a non-social agent and its environment is normative but not conceptual). According to Dreyfus, Gibsonian affordances and Merleau-Pontyan lines of force would be a clear example

of this: we perform actions online, exercising our responsiveness and perceiving opportunities for acting, but none of this is conceptual or rational at all because we just cope unreflectively with our environment and we do not need to conceptualize anything. Holding the contrary, according to Dreyfus, would be to fall in the myth of the pervasiveness of the mental, which identifies ‘mental’, ‘rational’ or ‘conceptual’ with ‘disembodied’, ‘disembedded’, ‘offline’ or ‘detached from the environment’. However, it seems that it is Dreyfus who shares a dubious premise with the intellectualist, by equating rational with detached, and that leads him to negate the rational character of unreflective action.

In his response, McDowell insists on the compatibility between unreflective embodied coping and rationality (McDowell 2007a) (see 9.1). Dreyfus (2007b: 372-3) acknowledges that he committed a mistake when he depicted McDowell’s approach: he recognized that it is not an intellectualist, Cartesian approach to action and perception. Anyway, Dreyfus still insisted in taking conceptuality out of the picture of embodied coping, but McDowell answered that rationality (conceptuality) permeates experience mainly because we can apply our justificatory abilities (which are a species of all of our rational abilities) to experience. As McDowell claims in his example of the person who catches a frisbee (McDowell 2007: 368-9), that person has the ability to understand (and answer to) the question of why she caught the frisbee. Even if the answer is “I don’t know, I just did it”, the question remains intelligible (see 9.5). This means that she may include that unreflective embodied and situated experience as an argument in a further inference. This also means that rationality permeates experience because the content of our beliefs is not different in kind from the content of our embodied coping experience. The content of our experience is conceptual because, in the example of the frisbee catcher, the object was identified and individuated, so the content associated with that experience can be articulated in a further inference: this amounts to saying that the content of a particular unreflective embodied experience of coping has the potentiality to be part of the rest of our beliefs². This is why Dreyfus’ accusation of certain mythical

²This raises the question of the relationship between conceptuality and language. Is it possible to identify and individuate objects conceptually in a non-discursive way? I will place this question within a broader perspective below. However, I think that a positive answer can be given, following McDowell and Evans (Evans 1982, McDowell 1994: 105-7, McDowell 2009: 262-4). Evans and McDowell stressed the idea that demonstrative concepts are concepts that do not possess any trace of generality, as most concepts do (‘red’ is a general term that does not capture the particular features of the different experiences of particular red objects; it just captures a common feature that all of them share regardless of their particularities). So the existence and

character of the McDowellian picture is unmotivated. Dreyfus tries to show that affordances, lines of force and some cases of expertise can escape from conceptuality, but it is hard to show a proper counter-argument to McDowell's thesis (at least Dreyfus does not offer it during the discussion). This is the reason McDowell claims that Dreyfus falls into another myth: the myth of the mind as detached (see 9.1). This myth offers a picture of the mind in which the content of experience (of our perceptual beliefs) and the content of our rationality (the rest of our beliefs) is different in kind (thus, the experiential content would be emotive rather than conceptual). This, according to McDowell, would preclude us from explaining how we can justify beliefs and how the contents of our experience can be part of further beliefs.

After rejecting the equation of mindfulness and detachment, affordances could fall under the McDowellian explanation without losing any of their typical aspects (see 10.3). This approach shares a lot of similarities with the one offered here. Note that both approaches to normativity (the one offered here and McDowell's) share a Rylean background. In fact, Ryle's dispositional approach (see 4.5 and 5.5) is quite similar to Merleau-Ponty's approach, at least in the way Dreyfus puts it: "(...) these skills are "stored", *not as representations* in the mind, but as more and more refined *dispositions* to respond to the solicitations of more and more refined perceptions in the current situations" (Dreyfus n.d: 1, my italics). No storing of representations in skilful online activity is found in Merleau-Ponty or Dreyfus, and neither in Ryle or McDowell. In this sense, it is easy to reconcile the phenomenological approach with the Rylean-McDowellian one (at least in the debate on skilful coping). In this vein, examples of social normativity like playing football would be easily accommodated in this picture, and this is why we offer this example in this paper³.

identity of that concept depends on the existence and identity of a certain particular object or property. If we perceive a particular object with a particular red color, the content of our mental state is conceptual and not linguistic because the concept that we possess in that moment depends on the existence of that object's color. So we can identify that color in other contexts and, if we *want to linguistically express* that identification, we can say to a friend, "See? *This* is the color I meant" by using a demonstrative. So the conceptual can be articulated discursively, but this does not mean that every concept should possess a linguistic nature. Recently, McDowell developed a Kantian-inspired notion of 'intuition' as the content of perceptual experience that also fulfills this requirement (see 9.4 and 10.3)

³For details on the McDowell-Dreyfus debate, see the volume edited by Schear (2013) and for a critique of Dreyfus and Schear's arguments see Heras Escribano (2014). See Heras-Escribano et al. (2015) for a rejection of a similar commitment to normativity in phenomenology and enactivism. See also Pinedo and Noble (2008) for an argument against the need to choose between

6.2.4 An anti-intellectualist approach for explaining situated and embodied cognition

There is another feature of normativity that I want to highlight with the above extended discussion of the football example. Sometimes normativity has been regarded as a feature of the mind that has nothing to do with the situated or embedded processes such as perception and action. According to this view, following a norm would be something like repeating an explicit, general and discursive instruction in our heads; an instruction that does not take into account the particularities of the specific situation that the agent is dealing with. But the agent does not need to entertain an explicit and general instruction for acting in a normative way. Following a norm does not involve repeating general discursive instructions to oneself (PI §§185-202, Gallagher 2009: 46-7). The agent must think about what is being done, but ‘thinking’ should not be understood as remembering a general maxim or mentally uttering a sentence.

The case analyzed here (football) is an example in which both the goal and the correctness criteria are easily expressed in discursive terms. For example, the rules of football that are written in the FIFA books and the rules for driving written in driving manuals are discursive expressions that make explicit the normative aspect of practices like playing football and driving. But one does not master the technique of driving or playing football if one just knows what is written in the books. One should know how to do it online. Other situated normative practices are more difficult to make explicit in discursive terms: for example, keeping the appropriate distance among people in an elevator (Rietveld 2008). Note that Ryle’s approach supports a dispositional, non-deliberative, non-representational, non-discursive, non-intellectual approach to situated normative practices (see 4.5). After all, Ryle himself claimed that “understanding is a part on knowing how” (Ryle 1949/2009: 41), and this is valid both for explicit and implicit, non-discursive (playing football) and discursive (telling jokes) normative practices. Understanding the practice comes first, and later we can try to make it linguistically explicit (first you must know how to make good jokes in practice before writing a book on how tell good jokes). We can *express* linguistically or discursively the way we act or the goals and correction criteria we are following, but in order to follow a norm in a

representationalism and eliminativism with respect to agency.

particular situation the explicit maxim is not enough: we must be engaged in the practice, and this is something that Ryle labelled as ‘intelligent behaviour’. This is why, along with his critique of the intellectualist explanation of behaviour, Ryle’s work should be historically understood as one of the first proponents of situated normativity within the analytic post-positivist tradition. And also, it should be noted that this common view of the phenomenological and the post-positivistic analytic tradition on skilled activity as a main feature of experience is something that, according to Dewey (1916: 306-23), comes from ancient Greece rather than from the British empiricist tradition. This notion of experience as skilful activity that Dewey finds in ancient Greece is a common source for the ones depicted above, and both share a significant number of aspects like the following: it is concerned with the practical rather than with the intellectual (see Ryle, McDowell, Merleau-Ponty and Dreyfus), it is bound to the social, even to culture and tradition (see Wittgenstein, Heidegger, Gadamer and McDowell), and it is some kind of knowing how that may or may not be connected to our verbal abilities, so we may or may not express discursively what we know in the realm of the practical (see Ryle, Heidegger and Wittgenstein).

Correctness criteria are not explicit or discursive general instructions that work as maxims that guide an agent’s behaviour, but they may be expressed in discursive terms. That would be an intellectualist explanation, not a case of embodied-embedded and unreflective action. And acting normatively is not a case of the former but of the latter. Along with this distinction, the intellectualist hypothesis should also face a strong logical objection. As Ryle (1949/2009: 18) claimed:

The wit, when challenged to cite the maxims, or canons, by which he constructs and appreciates jokes, is unable to answer. He knows how to make good jokes and how to detect bad ones, but he cannot tell us or himself any recipes for them. So the practice of humour is not a client of its theory. The canons of aesthetic taste, of tactful manners and of inventive technique similarly remain unpropounded without impediment to the intelligent exercise of those gifts. (...) The crucial objection to the intellectualist legend is this. The consideration of propositions is itself an operation the execution of which can be more or less intelligent, less or more stupid. But if, for any operation to be intelligently executed, a prior theoretical operation had first to be performed and

performed intelligently, it would be a logical impossibility for anyone ever to break into the circle.

Given the lack of an infinite chain of explicit instructions, normative behaviour cannot be a case of intellectualist and disembodied action. In fact, the logical impossibility stated by Ryle shows that it is hard to adopt an intellectualist position for explaining action. This is why a football player does not need to mentally repeat the rules of football in order to be a good player. Therefore, rule following is an embedded practice and not a purely intellectual and disembodied one. Exploiting the resources of the environment is a requirement to be a good rule follower (also in the case of football). Thus, skilful, context-sensitive and intelligent behavior is not something intellectualized and discursive.

6.2.5 Embodied and situated norm-following behaviour as pertinent and flexible

Normative actions are sensitive to the context or to the environment where they are performed. One action would be more or less *pertinent* depending on (a) the disposition of the environment and (b) the correctness of the action according to the rules being followed. ‘Pertinence’ is a key concept when we describe normative actions because that notion is useful to evaluate the adequacy of that action given the goal, the norms, and the constraints of the environment. We evaluate an action as ‘pertinent’ when we claim that it fulfils its goal by applying the correctness criteria in a successful way, *given the particularities of the environment*. Although goal-directed behaviour can be satisfied through scoring, the player does not always score in the same way; on the contrary, different situations demand different actions to achieve the same end when the agent is unreflectively coping with his or her environment. Given this, the rule follower must be engaged with the surrounding environment. Sometimes the player will dribble before kicking, other times a step-over manoeuvre will be used, depending on elements external to the player. Thus, the notion of ‘pertinence’ emphasizes the sensitivity to the environment of norm-following processes.

This situatedness, embeddedness or context sensitivity explains the flexibility of normative behaviour. As we have seen, when following a norm, a person achieves

some goal by performing an action under certain correctness criteria (see 6.2.1). If the goal is to win by scoring and the correction criterion is, for example, doing it without using your hands, then the player has to face several particular situations every time he or she plays in every match. The player finds certain affordances in the surrounding environment that work as possibilities to guide the action of the player, and this looping process⁴ is what explains the embeddedness of the online performance of the action. This necessarily implies a flexible behaviour because the player can interchange different means in order to achieve a given end, be it described in a performance of a special range of movements (see Day and Wagman 2013 for an ecological description of it) or be it related to what Dreyfus (2013: 32) calls “improving [the maximal] grip”. In order to win the match under the rules of football, the player can achieve that goal through very different means that depend on different actions, which at the same time depend on the surrounding circumstances. Flexibility is a distinctive feature of normative practices because it is a feature of an environment-sensitive behaviour.

6.2.6 Embodied and situated norm-following behaviour as restricted to social agents

Normativity should be understood as socially mediated. This idea is tightly related to the examples of situated normativity presented above (playing football, finding the appropriate distance in the elevator, etc.). Unlike some enactivists (Barandiaran and Egbert 2013), who claim that a non-social agent (like a bacterium, for example) is able to establish and follow its own norms, I believe that when such behaviour is classified as normative, that classification leaves key features unexplained (as I will argue in Chapter 7). For example, if a normative practice implies training and not merely a drill or a stimulus-response behaviour, that training should imply flexibility and pertinence. And this training process is usually related to sanctions and reinforcements. For this reason, the idea of non-social agents following a norm privately would lead to paradoxical consequences. It would be strange to consider that non-social agents could be able to distinguish between the right and wrong course of action at a given time, because the same action could be ei-

⁴A looping process in this context refers to the continuous, online and dynamical engagement between an agent’s capacity for perceiving-acting and certain elements of her environment. A more detailed depiction of what is a looping process is offered in 3.2.8 (page 57) and 3.2.9 (page 59).

ther right or wrong depending on how the non-social agent interprets the norm. This paradoxical consequence in which a course of action could be right and wrong simultaneously makes us think that normativity should be understood as socially mediated. These are the main consequences once we understand Wittgenstein's contributions to the idea of normativity and normative practice.

6.2.6.1 Wittgenstein's argument

Wittgenstein's (1953, §§ 185-242) argument against the possibility of a private rule-following and rule-establishing practice is an argument against the idea that following a rule could be explained in a factualist way (PI § 201). The argument can be summarized as follows: if an agent is following a rule, we cannot make sense of that rule-following behaviour if we just appeal to an instinctive response towards a stimulus or to a personal interpretation of the rule. In both cases, agents are not able to show a proper rule-following behaviour because they are not acting in accordance with the rule, but only in accordance with their instinctive triggering or their personal interpretations of it. If this is so, an unsatisfactory epistemic consequence follows: those agents would not be able to distinguish between what is correct and what seems correct to them, because they cannot differentiate between following the norm and their instinctive response / personal interpretation of the norm, between following the norm and merely thinking or believing that they are doing so. Hence, the concepts of 'right' and 'wrong', 'correct' and 'incorrect' are of no use in those contexts in order to evaluate the behaviour of those agents. Every action would be in accordance with the rule, which is the same as saying that there is no possibility of error (see 6.2.7). And, if there is no room for error, we cannot distinguish between a right rule-following behaviour and an incorrect one. This shows that those agents were not following a norm at all, and also that no normative aspect should be attributed to those kinds of behaviours.

As shown by Wittgenstein (see also 7.3), following a norm privately would amount to obliterating the distinction between 'it is right and 'it seems right to me'. Correctness criteria are necessary to follow a norm (as we have seen on page 127), but non-social agents cannot establish those criteria on their own. If this were the case, it would lead to an unsatisfactory conclusion: the same action could be either right or wrong depending on how the agent interprets the norm, so the notions of

‘right’ and ‘wrong’ become meaningless. The paradoxical consequences of following a rule in a private way force us to accept its socially-mediated character. This is the reason why an agent, considered in isolation, cannot be a proper rule follower. Thus, the Wittgensteinian objections lead us to claim that the set of correctness criteria for each normative practice must be potentially shared and sanctioned by the community. This would explain how sanctions and reinforcements, if they come from the community, could shape each agent’s behaviour in order to make that agent a proper rule follower. However, there is also room in this picture for an individual (although *not private*, see 6.3) aspect of norm establishing and norm following: only when somebody has been initiated into normative practices within a community is possible to conceive of a new, rule-bound practice that could be performed by a physically isolated agent. Thus, the agent must have previously learned to follow norms (being part of a community of rule followers) in order to create new norms that could be followed individually, although also potentially followed by others. Surely, Wittgenstein does not mean to rule out that someone may, say, invent a solitaire game, play it a few times and decide that it’s too boring to share with anyone else. Playing that game would be subject to a normative assessment. In that sense, even though an individual considered in isolation from any possible community is placed outside the normative sphere, there are (many) cases where an individual’s activities can be evaluated as correct or incorrect.

6.2.7 The possibility of error

Finally, I would like to conclude by claiming that an essential aspect or necessary condition of all normative practices is that *following norms includes the possibility of error*. As we have seen, given the flexibility of action and the pertinence of the environment (see 6.2.5), we can perform certain actions in a right or wrong way. This possibility of error is a necessary condition for explaining the normative aspect of action because it shows that the agent may or may not succeed in following a rule. As we have seen, we claim that an agent is a proper rule follower when that agent is able to apply the correctness criteria in view of the circumstances (see 6.2.1 and 6.2.5). If the agent shows a sufficient number of times the ability to engage with the environment in order to exploit the resources in a creative way without violating the correctness criteria, we would claim that the agent is following a norm. Sometimes the agent would apply the criteria in a pertinent way and sometimes

not. For example, an agent may mistake a dog for a goat by wrongly perceiving the features (that is, the non-ecological properties) of that animal and apply the concept ‘goat’ to the wrong kind of animal. This can happen even when an agent possesses the concept, *i.e.*, when the agent normally knows how to apply it. On the contrary, if the agent errs *every time*, we would not claim that he or she is able to follow that norm, nor would we say that he or she possesses that concept. However, the agent could learn to apply that concept or to follow that norm in the right way through training (through explicit instruction, sanctions, reinforcements, etc.). Stimulus-response behaviours, as opposed to norms, do not include the possibility of error. These never fail when acquired because the causally triggered response is not flexible or context dependent —there is just one way to respond to the stimulus, and that leaves no room for failure. Either the agent acquires the habit or not. On the contrary, the flexibility of normative practices, which includes pertinence, opens the possibility of acting in a wrong or in a right way considering the means, the goal, and the circumstances. This is a major difference between normative practices and non-normative ones: the former include the possibility of error and latter do not. This also explains the difference between training someone to become a rule follower and the drilling process for developing an automatic response.

6.3 Normativity from a non-descriptive and non-factualist approach in contemporary philosophy

As we have seen, a norm-following approach to cognition needs not be based on the idea of following explicit general rules to guide behaviour. In this sense, it does not need to rely on an algorithmic-based, cognitivist and intellectualist interpretation of what is normativity. We have seen how intellectualism (the idea that an agent, in order to act, must compute explicit general maxims or rules in its mind prior to behavior) was rejected by Gilbert Ryle (1949), one of the leading philosophers of the norm-following explanation of cognition (see 6.2.4). For that purpose, he made a capital distinction (used in epistemology and philosophy of action since then), between ‘knowing-that’ and ‘knowing-how’. While the know-that approach is used

to characterize explicit, discursive or propositional knowledge (such as purely intellectual knowledge, *i.e.*, mathematical or some other theoretical knowledge), the know-how approach to cognition is the one related to action, skillful abilities and perception. This kind of knowledge is not discursive, propositional or explicit. It could be put into words, but a linguistic expression of that way of acting does not exhaust the normative aspect of the know-how knowledge (see 6.2.3): this normative aspect is expressed in the mastery of the skills or abilities themselves applied to each particular situation (see 6.2.5). And this coping in every particular situation cannot be exhausted by a linguistic maxim or rule, because that general rule just expresses the general aspects of that particular ability, not the distinctive and particular features that the agent deals with in specific situations.

Often, for explaining how somebody masters a particular ability, we require certain degree of reasonability that comes from the agent's being part of a community of shared practices (see 6.2.6 and 6.2.7). Without this requirement, it could be impossible to explain the normative behaviour of an agent, because it is the only way to explain how the agent is acting for reasons. For example, we could claim that somebody exercised her skills *in order to* fulfill the task, or that she acted in a certain way *because* she thought it was the best thing to do. Our intentional vocabulary is irreducible for explaining behaviour. It is the most primitive tool that we have to distinguish mere causal triggerings from proper normative actions that bound our behaviour as cognitive creatures.

So, by emphasizing normativity, what we have here is not an intellectualist approach to action and perception similar to the ones endorsed by cognitivism and the GOFAI view of artificial intelligence. This is because, as Travis (2000: 210) claims: "There is no algorithm for reasonableness". Rather, agents that know how to deal with their environments are able to discriminate the relevant features they have to attend to and also which are the pertinent responses that agents must provide to respond correctly to them. This is the difference between a mere descriptive (fact-stating) stance and a normative stance towards the explanation of our actions and perceptions (go to 2.4 and 9.1 for further information). If we explain our actions normatively, we provide an explanation in terms of abilities and not just in terms of facts. Thus, agents through their abilities can cope with the environment in different ways and moments, and a scientific explanation of each particular execution of the ability cannot exhaust the normative character of

their abilities (as i was shown in 2.4.2.1). This is useful for explaining action and perception, but this normative view goes further. There are several philosophical positions that take as their starting point a non-descriptivist norm-following general framework.

Semantic and moral particularism are two interesting examples (McDowell 1979, 1998, Travis 2000, Dancy 1993, 2004). Semantic particularism defends the idea that the semantic contribution of the same term in every speech act depends on the distinctive features of the context in which it is uttered. Moral particularism claims that ethical evaluation is not based on general maxims (such as categorical imperatives or universal commandments). Ethical decisions depends on the sensibility of the agent to the specific demands of particular moral contexts: “Occasion by occasion, one knows what to do, if one does, not by applying universal principles but by being a certain kind of person: one who sees situations in a certain distinctive way.” (McDowell 1979: 374). Two actions of the same kind may have radically different moral valences in different situations and no general maxim can capture such context-sensitivity.

Related to particularism, semantic and moral expressivism (Blackburn 1993, Brandom 1994, 2001, Gibbard 1990, 2012, Frápolli and Villanueva 2012, Frápolli 2012) claims that not all our statements about the world are descriptive (*i.e.*, they do not state facts of nature); rather, some of them play the function of expressing an evaluative attitude of the agent with respect to certain features of the world. Expressivist views are not only found in semantics and in ethics, but also in broader areas such as epistemology and metaphysics. From semantics to metaphysics, anti-descriptivism is a solid and increasingly influential stance towards cognition.

This norm-following and non-descriptivist stance, exemplified in all these views, outlines the primitive character of normativity in order to characterize action and perception. The main feature of non-descriptivism is the primitive character of a non-explicit and non-intellectualist view of normativity. Starting with the work of Ryle (1949) and Wittgenstein (1953) (see 6.2), it is one of the most powerful opponents of the traditional, intellectualist, cognitivist and formalist approach to explain cognition in all its levels, from perception and action to language and ethics.

Contrary to non-descriptivism, any descriptivist approach to normativity implies a factualist assumption (as I argued in section 2.3). Our explanations of

cognition are taken to be descriptive, on a par with the explanations of the natural sciences. To describe an agent as being aware of some feature in its environment is to do the same *kind of* thing as (let's say, in the sciences of the non-living) attributing a certain weight to a subatomic particle or as describing the mechanics of the sodium-potassium pump. For enactivism, cognition is considered to be a fact, or a process, that is describable by science, and our natural language expressions should be part of an explanation whose statements directly refer to certain scientific facts or properties.

The problem of the descriptivist approach is that this strategy does not suffice to explain the normative character of our mental *abilities*. Then, the task is to clarify what do we mean when we claim that certain action has been performed following a norm. One typical conclusion that comes to our minds when we claim that the normative aspects of our abilities are not reducible to describable facts is the intuition that this idea could entail that abilities and skills are spooky entities or processes. But nothing is further from the truth. To put it again in Ryle's words (1949/2009: 22):

Now a skill is not an act. It is therefore neither a witnessable nor an unwitnessable act. To recognise that a performance is an exercise of a skill is indeed to appreciate it in the light of a factor which could not be separately recorded by a camera. But the reason why the skill exercised in a performance cannot be separately recorded by a camera is not that it is an occult or ghostly happening, but that it is not a happening at all.

In Ryle's view, skills or abilities are not identical with the actions or exercises that manifest them, or with any scientifically measurable property or parameter (as we saw in 2.4.2.1 and 4.5). The point that Ryle highlights is that not every explanatorily relevant discourse is referential (see also 2.3). From a descriptivist point of view, when we claim that some agent possesses a skill (say, the capacity to act in such and such a way, or to infer this from that) we are asserting a matter of fact. In contrast, from a non-descriptivist point of view, when we claim that an agent possesses certain skills, we express an evaluation of a range of situations. Those expressions do not need to describe or stand for certain entities in the world neither they represent them; instead, they assess whether the agent that performs

an action or makes a statement is satisfying certain criteria of correctness.

The idea that our normative assessments do not play a descriptive role is independent from the complexity of the action under evaluation. In this sense, the problem of scaling up, important though it is, is a symptom of a deeper malaise: the reason why social norms cannot be grounded on biological, empirically describable, norms is not their greater complexity, but the fact that norms cannot be grounded on facts. As it should be clear by now, the problem of descriptivism about the mind is not merely that faces insurmountable difficulties when the cognitive complexity escalates, for instance, when the agent is part of a social community. The problem is already there even for minimally cognitive agents: when we say that an agent (for instance, a bacterium) is searching, avoiding, intending or wanting we are not describing the agent, but interpreting, making sense of its behaviour. This means that understanding any agent's behaviour goes beyond offering an empirical and mathematical account of its movements.

This is the essence of Wittgenstein's discussion of rule following (see also 7.3 for an application of these ideas). Taking a normative approach to certain phenomena is not searching for normative facts, on a par with, say, chemical or physiological facts, but taking a kind of stance on behaviour without which (if the normative approach is adequate) we cannot even place our empirical discoveries within any framework. Neither general rules, nor the agreement of the community nor an interpretation of the rule are sufficient to evaluate in terms of normative standards (though they may be necessary for introducing someone into normative practices). We have agential vocabulary to make sense of the living in terms that are not those of the physical sciences. But we do not need to embrace the idea that actions or norms are entities along with atoms, molecules, bacteria or gorillas.

Wittgenstein argues against several targets: amongst them, Platonistic or Kantian takes, that demand general, universal principles or maxims in order to ground particular normative evaluations, and factualist accounts that understand normative statements as descriptions of parcels of reality, ladden with normative properties. One thing is clear: Wittgenstein gives a central role to the social in his discussion. He insists time and time again on practices, training, customs or the impossibility of following a rule privately. A rule cannot be followed only once or only by one agent. However, it is easy to find a convincing counterexample to that simple formulation: surely someone can invent, say, a patience or solitaire

card game, play it correctly a couple of times and then forget about it. Or Robinson Crusoe, a favourite within the discussion, can give names to the trees in his island and be consistent in his usage. Are these cases of private rule following? Self-correction, on the other hand, is a common feature of rule followers. Tired of dripping milk every time that she uses a tetra brik, Mary tries to hold it the other way around and the spilling is over. If the community plays a necessary role for normativity, it does not seem to be watching over every instance of following a rule, or establishing one.

Wittgenstein's main points are two: (1) normative practices cannot be grounded on something like 'normative facts', and (2) a *private model* of rule following (and norm establishing) is highly problematic. Let's focus now on (2). What is a private model of rule following? It is an account of normative phenomena that accepts as normative actions that, as a matter of principle, can only be performed by one agent. Paradigmatic examples in the debate make reference to private, mental entities (pains, intentions, expectations, etc.). Wittgenstein cannot be discarding the possibility that I feel my pain in silence, think about it (for instance, think about what drug to take to ease the pain), take an aspirin and move on without anyone else being involved in the process. What he discards as nonsensical is the idea of private objects of introspection that are, as a matter of principle, beyond the reach of everybody else. If my thoughts and feelings (or my solitaire game, or Crusoe's naming practices, or Mary's tetra brik clever trick) are not sharable, then they are not thoughts, feelings, games, practices or tricks. They do not need to be actually shared; they only need to be *potentially* shared (susceptible to be shared) by others to count as proper practices or thoughts.

As it has been mentioned on page 136, there is a certain sense in which I can establish and follow a rule in solitude. For it to be established or followed privately, in Wittgenstein's sense of privacy, the rule would need to be understood only by me. If no one could be in a position to judge whether I'm acting correctly according to the rule that I myself have established, there is no justification to speak about following it. Furthermore, Wittgenstein emphasizes the need to distinguish between "it seems right to me" and "it is right". For a realm to be normative, there must be room for error and correction (see 6.2.6 and 6.2.7), but there must also be room for the agent to realize that it has erred. A creature unaware of the possibility of a gap between her actual behaviour and a better option cannot be evaluated

in normative terms (think of a two-year old child using swear words). Sometimes others make us aware of our mistakes, sometimes we realize on our own. But, how does the awareness originate? I claim, following Wittgenstein, that it comes from our being initiated in normative, social practices. Once that we are introduced in them, we may establish and follow practices on our own, without being trained by someone else. The crucial role of the community is not to correct us permanently, but to show us that, sometimes, what seems correct is not correct.

Wittgenstein's opposition to what could be called interpretivism shows both his challenges to intellectualist conceptions of rule following (to follow a rule is to subsume an action under a general principle) and to the private model of rule following. If normativity were merely a case of acting in agreement with a general maxim, in order to evaluate whether an action is correct or incorrect we would need to offer an interpretation of the rule for the specific case that shows whether there is accordance or disagreement with the rule. But the interpretation itself would still be subject to interpretation, inasmuch as it retains the universality of the rule being interpreted. As we have seen, the social character of normativity is what explains rule following, and the possibility of error is needed in order to talk about it too.

In conclusion, Wittgenstein's account works as a definition of the conditions to talk of rule following and rule establishing. As we have seen, both are properly understood only within a social framework.

6.3.1 A common place for Wittgenstein, Ryle and Sellars

As we have seen throughout this chapter, normativity is not a factual feature or property of objects and agents. Rather, we characterize our behaviour as being normative by attributing that feature to it, but with this we do not point to a property, a fact or any other element in our world. What we do when we claim that we can understand our behaviour in a normative way is to make explicit the grammatical connections that are present in our ways to make intelligible our behaviour. The idea of a grammatical connection comes from Wittgenstein. According to Wittgenstein, grammar is not a set of abstract, idealized and strict syntactic and semantic rules, but a network of connections among words and expressions that determine

what linguistic moves are allowed in order to say something meaningful. These connections are grammatical or internal. This means that they are interwoven with all of our practices in our general form of life (Biletzki and Matar 2002/2014). Thus, when we evaluate certain behaviour as normative, this means that we are committed to a certain explanation of that behaviour and also to the consequences that follow from our first depiction of that behaviour. This connection is established between pieces of our discursive explanations. As Baker and Hacker (1985/2009:130) claim: “‘Following a rule’ designates a normative practice. It is that practice that forges the internal [or grammatical] relation between the rule and what counts as accord with it”. Having this idea of the grammatical connection in mind, we can understand now all the implications related to the epistemic responsibility of agents: this is why agents, in the Wittgensteinian view, are able to differentiate between what is right (because practices were depicted respecting the grammatical connections of the terms and expressions involved in the explanation) and what merely seems right (what is not a grammatical connection between two discursive depictions of a behaviour). This is why we can expect certain epistemic responsibility from social agents with respect to their norm-following behaviour, because they are part of a community with a form of life in which they should know which are the proper grammatical connections that should be present in their explanations of their behaviours.

This goes in line with Ryle’s (1949/2009) idea by which we attribute intelligence to an agent based on her application of certain correctness criteria. These social agents learn such correctness criteria because they are part of a community with a form of life, and there is where they learn to do the right grammatical connections in order to explain behaviour, which has a clear impact on how to behave. This is why they are ‘responsible of their performances’ (Ryle 1949/2009: 17). The idea of a responsible agent in a norm-following situation, in which agents apply correctness criteria, is something common to Wittgenstein and Ryle.

These ideas are also connected to those of Sellars’ (1956). The grammatical connections and the application of correctness criteria are something that goes in line with Sellars’ ideas on normativity. First, Sellars’ (1956: §5) anti-factualist approach by which we cannot analyze beliefs or anything epistemic into something non-epistemic under the threat of committing ourselves to something like a naturalistic fallacy points into a direction in which normativity should be understood

in a non-factualist way. This is quite similar to the anti-factualist analysis of Ryle ('neither a witnessable nor an unwitnessable act' 1949/2009: 22), and it is explicitly claimed in his famous passage: "in *characterizing* an episode or a state as that of knowing, *we are not giving an empirical description of that episode or state*; we are placing it in the logical space of reasons, of justifying and *being able to justify what one says*" (Sellars 1956, §36, italics added). If we understand that we are not describing anything, but explaining or justifying why we know or do something, our analysis takes places at another level: the level of the normative. This normative level is what Sellars named 'the space of reasons', and this space of reasons is full of moves that allow us to offer an explanation in order to justify our beliefs. These moves, characterizations or explanations of our behaviour are guided by *grammatical connections*, using the Wittgensteinian expression, and some of them are the *correctness criteria* by which, according to Ryle, we evaluate the behaviour of some agents as intelligent. This is why it makes sense to attribute certain responsibility to agents for their performances. And only to social agents, because only social agents are able to understand of all these grammatical connections that are needed to account for their behaviour. This space of reasons full of grammatical connections and correctness criteria is where the ideas on normativity from Sellars, Wittgenstein and Ryle encounter each other.

6.4 Conclusion

This chapter has offered a general view of normativity from an anti-factualist approach. Following the work of Wittgenstein, Ryle and Sellars (see 6.3.1), we find that normativity is not a factual property but the way social beings explain and make sense of their behaviour (as it was shown in section 6.3). Normativity, then, has certain features (mentioned in 6.2), of which the possibility of error and the socially-mediated character are the main ones (as it was discussed in 6.2.6 and 6.2.7). If these two features are not respected, then we have to face the paradoxical consequences of which Wittgenstein made us aware of: the notions of 'right' and 'wrong' would be meaningless. This is why non-social agents are unable to have a norm following behaviour.

This depiction of normativity is what allows us to understand the normative

character of affordances (as I will argue in sections 8.3 and 8.4). But, before moving to Chapter 8 (in which I defend a way to understand properly the taking advantage of affordances in a normative way), I will explore in Chapter 7 one of the most prominent theories that understand normativity in a factualist way: the enactive approach to cognition. Thus, in the next chapter, I will argue that the enactive approach cannot account for normativity, mainly because it cannot face the Wittgensteinian objections argued in this chapter (page 136). This argument is also applied to Chemero's (2009) approach to normativity in Chapter 8.

Chapter 7

Enactivism and normativity

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7.1 Introduction

This chapter¹ discusses whether the notion of normativity offered within the enactive approach to cognition can respond to the challenges presented in Chapter 6, especially those related to Wittgenstein's main arguments. As we have seen in section 6.2, situated and embodied behaviour is understood as being normative when it includes two main features: its social character and the possibility of error (explained on page 137). This chapter shows how the enactive notion of normativity does not include these main features. Section 7.2 explains the main ideas of the

¹The main ideas in this chapter are taken from Heras-Escribano, Noble and Pinedo (2015). Enactivism, action and normativity: A Wittgensteinian analysis. *Adaptive Behavior*, 23 (1): 20-33. I am thankful to Jason Noble, Neftalí Villanueva, Seth Bullock, Cristian Saborido, Víctor Verdejo, Xabier Barandiaran, Ezequiel Di Paolo, David Travieso and Javier González de Prado for fruitful comments and discussions.

enactive approach and focuses on its notion of normativity, both in non-social or individual interaction with the environment (as we will see in 7.2.1) and in social interaction (see 7.2.2). Finally, section 7.3 applies Wittgenstein's main arguments developed in 6.2.6) and shows that the enactive notion of normativity lacks essential features. The way this notion is depicted by enactivism (a relation between a non-social agent and its environment) is similar to that of phenomenology (Dreyfus 2005, 2007a, 2007b, but see also 6.3, 7.3 and 9.1) and Chemero's (2009) definition of affordances as normative relations that we will see in Chapter 8). Let's start showing which are the main ideas behind the enactive approach to cognition and normativity.

7.2 The enactive approach to cognition: Life, agency and normativity

Enactivism has always been a strongly biologically-based naturalist project. The main aim of this approach is to define what it is to be a living being. This endeavour has been recently supported by the modelling of basic biological functions, such as chemotaxis (Egbert, Barandiaran and Di Paolo 2012) or metabolic processes (Barandiaran and Moreno 2008). Among the achievements of this approach, perhaps the most important has been the development of a certain understanding of the notion of agency: While evolutionary biology emphasizes natural selection in order to explain biological functions of certain anatomical and physiological parts of agents, certain varieties of enactivism explains biological functions, for example, appealing to the maintenance of the organizational scheme that shapes the agent or the system (Christiansen and Bickhard 2002, Saborido, Mossio and Moreno in press).

Agency is the product of a set of distinct networked systems that, taken together, enable the emergence of a new entity: the agent as a whole. The first step of this project is accounting for individuality: in the original autopoietic formulation, an agent is understood as composed of a series of internal processes that, once assembled, generate a certain type of stability that does not depend on external factors. However, one of the advantages of Di Paolo's (2005, 2009) version of enactivism is that his theory emphasized how the environment plays a fundamen-

tal role on the constitution of agency, because processes in which the agent as a whole interacts with its outer environment also contribute to the maintenance of the agent (metabolism, etc.) and help to understand key concepts in the enactivist view, such as ‘sense-making’, ‘viability’ or ‘adaptivity’. However, external factors cannot determine, in a strong sense, the agent’s operation or activity.

Thus, the result of its own regulation is the generation of a unity separated from the outer environment (Thompson and Stapleton 2009). These self-assembled systems that establish their own individuality are networked via recursive interactions among them, and this fact accounts for the inner sustainability of the agent as a whole. The product of these assembled networked processes (metabolic, nervous, circulatory, etc.) is a full biological agent that is able to keep its own autonomy through space and time². This shaping is what Varela (1979, 1997) defined as the *operational closure* of the system: there is no primary system for constituting agency; on the contrary, if we want to analyze the enabling conditions of agency and the roles of the different systems, we will be guided from one to another until realizing that all of them are mutually supportive³.

This leaves the agent in a situation of precariousness (De Jaegher and Di Paolo 2007): without this special regulative organization, the same processes of the different systems would tend to dissipate under the same physical conditions. If some of the interdependencies cease to produce their own outputs required by other processes, there could be a propagation of dysfunction that may reduce or destroy the viability of the system (Christensen and Bickhard 2002). Thus, if all this regulative organization or assembly of systems is what allows for the viability of the higher system (the agent), the product of this assembly becomes a condition at the same time: the recently emerged agent needs to keep its own individuality in order to survive.

²Note that the force that shapes what it is to be a biological being is not an extrinsic force or law like natural selection but the inner balance and attraction among the various internal processes (at least in the early stages). Based on this, we can claim that this perspective is much more related to biophysics than to evolutionary biology, because it focuses not on populations but on individuals and their own inner self-emergent balances. This helps us to understand why complex-systems modelling has become in recent years the main tool that provides empirical support to the enactivists’ claims, and why this approach is so interested in individual agents rather than in populations.

³This operational closure implies a thermodynamical openness (Thompson and Stapleton 2009). Here we can find, again, the connection with biophysics.

This is the sense in which there is room to talk about biological normativity: the agent is produced by itself, and its goal (and also the goal of every subsystem) consists in maintaining its own self-production. As it is claimed, “[s]elf production is a process that becomes a unity and a norm: to keep the unity going and distinct” (Di Paolo 2005: 434). Now we can understand why an agent is an *autonomous system*: because there is a co-emergence of its own individuality (*auto*) and normativity (*nomos*) –which is nothing but to ensure its own identity through time. At this point we can define a biological notion of normativity: the one related to self-production and *autopoiesis*, which is highly related to autonomy, being the one that shapes agency (all along with individuality and asymmetry, as it is explained in Barandiaran et al. 2009).

This normativity of biological processes is also present in cognitive phenomena. This autopoietic or purely biological self-productive normativity is not identical to the normativity of cognition, although it is necessary for it. Within this perspective, cognition, as any other biological process, is part of the set of functions that shape agency and contribute to preserving it. Cognition is explained as an agent-environment *coupling* in which perception: rather than being a matter of logical computation, cognition is understood as adaptive behaviour (the online and spatiotemporally extended regulation of the agent as a whole with its own environment). This agent-environment coupling is understood as a sensorimotor loop by which every action of the agent produces a different sensation (Varela, Thompson and Rosch 1991). Some loops are more useful for the stability of the agent than others, and those that are become more salient or meaningful. Thus, within the history of this framework, classical and internalist enactivism (Maturana and Varela 1980) was extended in order to include the situated aspects of action and perception that contribute to the current enactive view of agency (Di Paolo 2005).

7.2.1 Adaptivity and sense-making

Unlike early enactivists, autopoiesis is neither the only source of normativity nor the only possible notion of ‘normativity’ within the contemporary enactive approach. Autopoiesis is a way of defining normativity by an all-or-nothing explanation: if the structural coupling with the environment is maintained even when certain interactions result in perturbations of the autopoietic dynamics with no loss of orga-

nization in the system, then everything that does not result in a loss of organization could be valued as something good (or at least ‘not bad’) for the organism (Maturana 1975, Varela Thompson and Rosch 1991). This is called the ‘conservation perspective’. But recent developments showed that the conservation perspective is a very narrow explanation that cannot account for all the normative aspects of the living and the cognitive in the enactive framework. As Di Paolo claims (2005: 439, italics added): “Events that provoke the same regulative response are not *meaningfully* distinguishable.” So, the normative aspect for addressing meaningful or valuable aspects of the organism’s surroundings must be explained in a different way. These authors, instead of an all-or-nothing view on normativity, propose that meaningfully distinguishable aspects are responded to in graded ways. The idea behind sense-making is to account for such valuable or meaningful aspects. Thus, the notion of ‘adaptivity’, developed by Di Paolo (2005, 2009), offers a new way for understanding sense-making in a much finer way, and also introduces a new notion of normativity within the enactive framework. Adaptivity is defined as follows (Di Paolo 2005: 438):

A system’s capacity, in some circumstances, to regulate its states and its relation to the environment with the result that, if the states are sufficiently close to the boundary of viability,

1. Tendencies are distinguished and acted upon depending on whether the states will approach or recede from the boundary and, as a consequence,
2. Tendencies of the first kind are moved closer to or transformed into tendencies of the second and so future states are prevented from reaching the boundary with an outward velocity.

As we see, adaptivity is “a special manner of being tolerant to challenges by actively monitoring perturbations and compensating for their tendencies.” (*Ibid.*) This new capacity would come, then, in the agent’s monitoring and compensating (regulating) its own behavior. “Both elements, self-monitoring and appropriate regulation, are necessary to be able to speak of meaning from the perspective of the organism” (*Ibid.*)

Di Paolo’s (2005) notion of adaptivity offers a new way to understand the specific normativity that goes beyond the all-or-nothing picture of autopoietic nor-

mativity in which there are no meaningful distinctions of the events that surround the system. These meaningful distinctions that the agent is able to discriminate through adaptivity give rise to a new notion: *sense-making*. Sense-making is the concept that enactivists use for explaining the elements that became salient, meaningful or valuable in their environments after a considerable number of regulative interactions with them (Thompson and Stapleton 2009). A simple unicellular system such as a bacterium develops its own sense-making through, say, different orientations in a sugar gradient. The different movements that the bacterium is able to perform are regulated depending on the concentration of sugar. The bacterium uses the sugar as a source of nutrients, but sugar's edibility is not an intrinsic property: it is only valuable *in relation to the agent* that takes advantage of it. Thus, sugar becomes valuable for the organism because it is an element of its environment that allows for its sustainability (inasmuch as it provides a nutrient that supplies energy to the agent and thus lets it maintain its autonomy). Those valuable features of the environment have also a normative character — in this case, if the agent does not keep up its relation with environmental sugar it will probably die. Normativity is, then, realized in every biological process. It is stated (appealing to this definition and also to empirical data; Barandiaran and Egbert 2013) that an agent such as the bacterium is able to establish and follow its own norm. Hence, sense-making is a common feature of every living being, from bacteria to humans, because every agent, in the words of Thompson and Stapleton (2009), is able to transform its own world into a place of salience and value and, for this reason, sense-making is a normative activity. According to Di Paolo (2005) and Thompson and Stapleton (2009), there are graded norms of vitality because organisms regulate their activity in ways that improves their conditions for autonomy.

By emphasizing the role of active regulations of agents or organisms with their environments, adaptivity suggests that in sense-making there are graded norms of vitality (health, sickness, stress, fatigue, etc.). These graded norms are the product of the continuous regulation of the organism's activity, which improves its conditions for autonomy. Mere autopoiesis, given its conservative character, only concerns the regulations of the states of the agent based on the conditions of viability, transforming its milieu according to the internal norms of its activity (Thompson and Stapleton 2009). Autopoiesis only provides a self-distinct physical system that can be the center of a perspective, and a self-maintained precarious network of processes (Di Paolo 2005: 439). In contrast, adaptivity “allows the

system to appreciate its encounters with respect to this [normative autopoietic] condition, its own death, in a graded and relational manner while it is still alive” (Di Paolo 2005: 439). So, the normativity of autopoietic maintenance reveals itself as insufficient for evaluating the events of the environment in a gradual way. For that, we require adaptivity.

Autopoiesis, thus, is insufficient for sense-making if it is not complemented with adaptivity. According to Di Paolo’s claim (2005: 439), autopoiesis allows for the creation of a system, while adaptivity is the way in which that system is able to value its own encounters with the environment. Here we will talk about (at least) two different kinds of normativity: one established by self-construction or autopoiesis, and the other provided by sense-making, which requires autopoiesis and adaptivity. As Di Paolo puts it (2005: 438, italics added): “If sense-making requires the acquisition of ‘a valence which is dual at its basis: attraction or rejection, approach or escape’ (Weber and Varela 2002, p. 117), a sense-making system requires, *apart from the norm given by self-construction*, access to how it currently stands against the all-or-nothing barrier given by that norm.”

7.2.2 From individual to social interaction: participatory sense-making

Until few years ago there was not an independent theory in the enactive paradigm for explaining social interaction. But recently, some authors (De Jaegher and Di Paolo 2007) propound a new theory within the enactive framework for understanding social interaction in enactive terms. The enactive account of social interaction is known as *participatory sense-making*. This approach to social cognition uses the key concepts of enactivism’s non-social cognition (such as sense-making), or even some enactive biological concepts (such as the operational closure) in order to explain social interaction, which reinforces the naturalist project of enactivism and also provides a new way for linking the biological, the cognitive and the social.

Which is their particular field of study? With ‘social interactions’ they “refer to the face-to-face encounters of everyday life. These encounters range from brief and superficial to deep and extensive” (De Jaegher and Di Paolo 2007:486). Also, participatory sense-making, through the application of enactive concepts for ex-

plaining these social interactions, can account for these encounters in the way this interactive experience is described in everyday language (De Jaegher, Di Paolo and Gallagher 2010: 442). The range of interactions they define as ‘social’ is so wide that they include our social and well-established practices like dancing or talking (De Jaegher and di Paolo 2007: 494), and also the interactions that we humans establish with other animals or even with robots (De Jaegher, Di Paolo and Gallagher 2010:443). But not all kinds of interaction fall under this concept. For example, bumping into each other on a busy street would not be a social interaction. On the contrary, social interaction seems to require a regulative aspect: “A conversation about a sponge is a social interaction, because the participants *decide* upon the topic together, *regulate* beginning, course and ending of the dialogue, and their autonomy (neither as living beings, nor as conversation partners) is not destroyed in the process” (De Jaegher and Di Paolo 2007: 493, italics added).

The tools for describing this regulative and interactive process are mathematical, mainly coordination dynamics (De Jaegher and Di Paolo 2007). In summary, social interaction is defined as “[t]wo or more autonomous agents co-regulating their coupling with the effect that their autonomy is not destroyed and their relational dynamics acquire an autonomy of their own. Examples: conversations, collaborative work, arguments, collective action, dancing and so on” (De Jaegher, Di Paolo and Gallagher 2010: 441). Thus, with the concept and the range of examples clear, we can move forward in order to understand how these authors provide an enactive explanation of the emergence of social interactions.

In order to explain this unique cognitive phenomenon, the authors claim that social interaction demands a new, independent level of analysis, and that the features that emerge at this level cannot be reduced to its components: “The interaction process emerges as an entity when social encounters acquire this operationally closed organization. It constitutes a level of analysis not reducible, in general, to individual behaviors” (De Jaegher and Di Paolo 2007: 492). The words ‘as an entity’ are very important: this means that there is an ontological and not just a methodological emergence of a new level of explanation. The new entity really possesses the features or properties that enactivists recognize they have, such as certain normative aspect. How do they explain the emergence of this new entity? There are some conditions for this new, social level to emerge: “[G]iven X, and a particular situation in which X occurs, F is a contextual factor if variations in F pro-

duce variations in X, C is an enabling condition if the absence of C prevents X from occurring, and P is a constitutive element if P is part of the processes that produce X” (De Jaegher, Di Paolo and Gallagher 2010: 443). If these conditions are fulfilled, the authors claim, then the new entity would emerge and we could talk properly of a new cognitive level describable in enactive terms.

Thus, social interaction is a new emergent level whose autonomy can be accounted for within the enactive approach if we adequately expand sense-making from the individual to the social. As it is explained in De Jaegher and Di Paolo (2007: 504):

We don't experience the other-in-interaction as totally obscure and inaccessible, nor as fully transparent (like an object fully constituted by my sense-making activity), but as something else: a protean pattern with knowable and unknowable surfaces and angles of familiarity that shapeshift as the interaction unfolds. Those patterns of change are influenced by my own participation in the emergence and breakdown of joint relational sense-making, hence they are not totally alien. My actions contribute to define the other-in-interaction not so much as my squeezing contributes to the experience of softness of the sponge but rather in ways that do not necessarily settle into a lawful relationship. I must alter my actions contextually in order to reencounter the other and in the process, sometimes, be encountered myself when her sense-making unexpectedly modulates my own. This recursive effect on my actions describes the co-modulation of self-in-interaction and other-in-interaction.

As we can see, the enactive picture goes from the biological to the social, and we can find (at least) two different notions of normativity involved. First, the primitive, non-social normativity of autopoiesis and self-production; second, the normativity of sense-making, that requires autopoiesis and adaptivity as necessary features for its emergence. This normativity of sense making is found in non-social cognition as well as in social interaction (participatory sense-making).

After this detailed account of the enactive definitions of normativity, in the following section I will classify both notions of normativity as belonging to the general

descriptivist framework. Then I offer some Wittgensteinian arguments (6.2.6.1) as a study case that could be applied to this enactive notions of normativity. To support this defence of the non-descriptivist account of normativity (depicted in 6.3, I hold that attributing normativity to the actions of non-social living beings can lead to a confusion of levels of explanation, even if it is done on the basis of their biological responses or on the idea that those responses are grounded on an individual interpretation of the environment (the sense-making proposed by enactivist authors).

7.3 The Wittgensteinian argument and the enactive notion of normativity

Here I intend to challenge the notion of normativity as presented by enactivism taking inspiration from the already explained Wittgenstenian approach as seen on page 136. First, I focus on the idea that immediate and untrained biological reactions cannot be considered as normative. Then I question the notion that individual interpretations of certain stimuli are sufficient to be considered as normative responses to them. After that, I take individual interpretations to be analogous to the idea of sense-making. Even when these different examples could be considered as equally biologically brute, differentiating between the two of them — the untrained reaction and the individual interpretation — is useful for highlighting different aspects of normativity that are missed in the enactivist account.

As we have seen, enactivism takes normativity to permeate all biological and also cognitive functions (section 7.2). But, from a certain perspective, this supposed normative character of natural reactions fails to satisfy some specific requirements for something to be classified as normative. One of the clearest examples, as we have seen on pages 136 and 6.3) comes from Wittgenstein's *Philosophical Investigations* (1953), in which the author places us in a situation where somebody is teaching a pupil to count, and the teacher wonders why, after many repetitions, the student is still not doing it correctly. The first explanation of the student's behaviour is always to appeal to his natural reaction, and the distinction between *natural* reactions and the *right* course of action that counting demands suggests that we can distinguish between acting according to one's natural dispositions and acting

correctly — acting according to a rule. So, following a rule seems to be something much more complex than naturally reacting. If all there is to following a rule were to act according to one's untrained reactions, then there would be no situation where learning could be thought to be necessary to coming to act in the right way. When we explain the normative character of a skilful activity like counting, we attend only to the right actions that an agent has to perform in order to count. And the rule for counting numbers is different from the rules that guide other actions or practices. We cannot explain the normativity of a certain skill appealing just to the probable role that this skill could play in sustaining the individual. This is why we can take all actions of an agent to be subsumed under the normative label, but this is insufficient to account for the normative aspect of each action or skill (see 6.2 and 6.3).

The other Wittgensteinian example that is revealing in this context concerns the intelligibility of individual interpretations (PI §§198-202). When discussing whether acting according to a norm can be understood as offering an interpretation such that the action becomes subsumable by the rule, Wittgenstein comes back to the example of the pupil learning mathematics. After some successful tests that seemed to show that he has mastered the use of the “+” sign (all involving numbers smaller than 1000), the teacher asks him “how much is $1000 + 2$?” The student answers “1004”. When the teacher tells him that this is not the right answer, he defends himself claiming that he is doing exactly what he was told: “I did as before. Wasn't the rule: add 2 up to 1000, 4 up to 2000, 6 up to 3000 and so on?” (PI §185). The student has managed to provide an interpretation of the rule behind the use of the “+” sign that covers all possible uses of the sign and is consistent with all the examples he was exposed to during his learning. It is tempting to say that the pupil can act in accordance with his own criterion. But this cannot be a proper account of rule following.

This example parallels the enactivist idea of sense-making as an explanation of normativity. As we have seen in 7.2.1, sense-making is the interactional and relational side of autonomy because while establishing its own maintenance, the organism establishes a perspective by which its interactions with its environment acquire a normative status (Thompson and Stapleton 2009). Every agent develops its own sense-making, which is to say that different aspects of the environment mean something different for every agent. In that vein, the answer of each agent

to the same stimulus could be different without any need of error or contradiction. Sense-making, then, can be understood as a particular interpretation of a certain stimuli in the own environment of every agent.

The Wittgensteinian example fits with sense-making examples if it is understood as an agent answering to a certain stimulus in a *sui generis* way that is valuable to it. In the Wittgensteinian case, a symbolic stimulus ('+') is interpreted in a way in which the agent as a whole accounts for a linguistic expression. In this sense, the expression of the rule would be the particular behavioural answer to the stimulus. And the enactivist takes this answer to be normative inasmuch as it allows for the stability of the system. Under the enactivist focus, any action or response to a stimulus would be part of the sense-making of the agent, because normativity and sense-making emerge together. And something is valuable in the enactivist sense when it allows for the self-stability of the system. Thus, any action or specific behaviour based on movements of the agent as a whole would be an expression of the rule that allows for the self-maintenance of the agent. This normativity would be found through all kinds of behaviours, from perceptual to linguistic, given that the enactive framework aims to categorize any cognitive function or ability as a biological one. This would mean that the student in the previous example would not be failing to recognize the symbol '+' under his own interpretation — that the student has developed a behaviour that allows him to deal with his environment in a way that the student maintains his own stability. But we all know that the individual interpretation of the symbol '+' offered by the student is wrong. Following Wittgenstein, an account of normativity based on individual interpretations cannot be satisfactory.

In order to illustrate this, we should come back to the Wittgensteinian example to conclude that the explanation given by the student seems deeply paradoxical: if acting according to a rule is no more than interpreting the rule in such a way that the action falls under it (in linguistic or behavioural terms), then every action can be made out to accord with some interpretation of the rule and every action can also be made to conflict with an interpretation of the rule. Then there would be neither accord nor conflict here (no distinction between "it seems correct" and "it is correct"). If acting according to a rule was no more than subsuming the action under an idiosyncratic interpretation of the rule, there would be no distinction between right and wrong and, hence, no normativity. The concepts 'right' or

‘wrong’, which are tightly connected to the concept of ‘norm’, would be of no use here. So, if everything is a norm, then nothing is a norm at all because nobody could distinguish what is normative from what is not. As Wittgenstein claims in § 201: “What this shows is that there is a way of grasping a rule which is not an interpretation, but which is exhibited in what we call ‘obeying the rule’ and ‘going against it’ in actual cases.” This, applied to the enactivist account of sense-making, would show that there is no room for error in such a narrow view of normativity. Given that isolated interpretations of stimuli are not sufficient to establish a normative framework, the conclusion is that the particular sense-making of an agent (let’s say, a bacterium in a gradient of sugar) cannot be categorized as normative. This point is explicitly stated by Wittgenstein: “Hence it is not possible to obey a rule ‘privately’: otherwise thinking one was obeying a rule would be the same thing as obeying it” (PI § 202).

The social plays an essential role in norm establishing and norm following within the non-descriptivist, non-factualist view defended in 6.3. Once an agent has gone through these learning and training processes, it acquires the capacity to correct itself in certain fields; to apply to itself the criteria shared *within a community* of agents that perform the practice. That is, norms have an intrinsic institutional character, and they are socially mediated (see 6.2.6). Given that non-social agents are not able to establish and follow their own norms and, also, given that in many cases an agent needs to be corrected in order to follow a norm properly, I think that the best explanation of the origins of norms is that they are natural phenomena located at the social level⁴. By this I mean the level of communities, because it

⁴As it has been depicted in previous sections, enactivists consider that there are socially established rules. For example: “even if the origin of some norms does not fully lie within the individual (e.g., social norms) it is always the individual who internalizes them” (Barandiaran et al., 2009: 6). I consider that, based on this quote, (1) there is no need to appeal to any kind of internalization of the rule and (2) I claim that norms can *only* be socially established. For (2) some arguments have been presented, but for (1), in order to reject the idea of internalization in a rule-following process, it is also interesting to bring up here the Wittgensteinian example of the beetle in the box (PI § 293). Let’s assume that everyone in their own case knows how to follow a rule because they have internalized it. Each one would walk around carrying a box and calling what is inside ‘a beetle’ — or, for our own purposes, ‘a norm’. Nobody can look inside anyone else’s box, and everyone knows what a norm is only through looking inside his or her own boxes. On the other hand, there is no need to look inside our boxes because in our everyday life we all know how to use the concept ‘beetle’ or ‘norm’. Suppose that in fact we all have different things in our boxes, or even imagine that there is nothing at all in them. Just as the object in the box plays no role at all in our understanding of how to use the concept, we do not need to look inside us or to appeal to any inner state in order to know how to follow a rule. This is why I claim that even within this enactivist framework, social norms are not properly depicted.

fits with a plausible empirical explanation of the rest of conditions required to talk about any normative sphere: correction, error, training, and the distinction between epistemic states of being right and wrong *via* sanctions.

It is worth saying that we can also find this assumption about normativity in the work of other philosophers not directly related with enactivism or with philosophy of biology. Hubert Dreyfus (2007c, 2005, 2010: 357, see also 6.2.3 and 9.1) claims that the regulations with the environment, instead of being conceptual, are normative but not contentful. For that purpose he bases his line of argumentation on the work of phenomenologists like Merleau-Ponty or Heidegger. Thus, we can find the idea of normativity without content as more closely related to enactivism than to Wittgensteinian normativity⁵. Dreyfus's problem is, at the end, the same as the enactivists': he is committed to the possibility of private rule following. A review of the normativity of action in anti-representational cognitive science, beyond the scope of enactivism, would be a sensible task to return to in the future.

Along with these reflections on normativity, there are other features of the enactive approach that are worth analyzing. Among these features let me highlight the problem of the mind-life *continuum* and the shaping of agency. Enactivism, as we have seen, is a biological account that aims to explain how agents shape themselves without appealing to any extrinsic force, such as natural selection. In that sense, enactivism, instead of following Darwin (1859), is much more related to von Uexküll (1909), the pioneering ethologist (see 3.1). Both enactivism and some approaches in ethology are concerned with the relations of agents with their environments in a recursive, looping way (as the reader may note, this looping process of enactivism and phenomenology is not based on ecological information as it was depicted in 3.2.8).

While enactivism has focused primarily on the inner self-production of agency

⁵It is worth saying that not all Heideggerians claim that the non-socially mediated and active being-at-hand regulations with the environment are normativity-loaded. For example, Wheeler claims, *contra* Dreyfus (who classifies the ideas on skillful activity of Heidegger, Merleau-Ponty and Sartre as being normative but not conceptual), that the Heideggerian account of skillful activity cannot be normative in Dreyfus' sense because "[i]n fact Heidegger goes further. For he holds not that culture is a source of normativity, but that the very idea of normativity makes sense only in the context of a culture. For Heidegger, then, the crucial for-the-sake-of-which relation—the normatively loaded structure that is at the root of every involvement network and that involves an act of projective self-interpretation—is itself cultural in character" (2005: 148). In that sense, this interpretation of Heidegger would be much more in line with the Wittgensteinian view that I offer than with the one offered by Dreyfus (2007)

and on the role that the environment plays in these processes (Wheeler 1997), I am committed to a much more ecological and evolutionary view of the shaping of agency. I believe that evolutionary biology can explain not only the features of individual agents but also features of populations not by means of inner forces but by means of laws of nature. Also, I understand that this externalism is best supported by the idea of niche construction (Sterelny 2007, Odling-Smee 2009), which is suitable for explaining the biological origins and emergence of affordances (Reed 1996, see 5.3). Although there are enactivist approaches in biology that have been combined with an ecological view of perception (Chemero 2009: 153-4), I prefer a purely externalist view of perception and biology endorsed by the evolutionary and ecological approach for explaining the life-cognition connection. First, because it can biologically explain how the perception and seizing of affordances are a feature not only of individual agents, but also of populations; and second, because it emphasizes the role of the environment in adaptation, which is significantly underestimated within the enactive approach.

Despite these previous ideas, I am far from arguing that the enactivist viewpoint has no place in an anti-representational account of the life-mind continuum; I only claim that it is not the only anti-representational theory on the market that is able to explain different aspects of the living nor of the cognitive. As it has been stated by some authors before (Pinedo and Noble 2008), a methodological pluralism is able to answer many more questions than a misplaced faith in just one theory or family of theories. In that sense, what I defend is that there are genuine questions, such as ‘how is an agent able to keep its own stability through time?’ that could be answered by appealing to enactivism. But I believe that it is not healthy for the endeavour of science and philosophy to answer different kinds of questions (*‘how did this feature evolve?’*, *‘why does this agent behave like that?’*, etc.) in terms of just one kind of concept, theory or process. This message was clear through this chapter in its relation to normativity in action, but it can also be extended in the future to a wider explanation of agency than the one offered by the enactivist under review.

Given that the individualistic perspective of enactivism leads to paradoxical situations and that there is no room for the idea of an individual agent following and establishing its own norms, I conclude (and I will also support throughout the dissertation) that the necessary conditions for genuine normativity include refer-

ence to a community with shared practices and error (see 6.2). I also claim that the consideration of normativity as an institutional, socially mediated phenomenon fits very well within the project of naturalizing normativity: normativity is not a feature of particular and isolated individuals, but a way to understand the behaviour of agents as members of populations and communities.

In their effort to offer a unified picture of cognitive processes, enactivism often embraces an approach to normativity that reduces it to a scientifically describable feature of cognition. This amounts to taking normativity for granted as an element that co-emerges with individuality and action. I have tried to offer an alternative naturalistic viewpoint that refuses to countenance normative facts and, hence, avoids naturalizing normativity by normativizing nature.

Chapter 8

Are affordances normative?

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8.1 Introduction

As we have seen in the previous chapter, the notion of normativity in the enactive approach is unable to face the objections of the Wittgensteinian argument against the possibility of a private model of norm-following (7.3). The same descriptivist and factualist approach to normativity (defended in section 6.3) is shared by some authors who claim that affordances are normative relations, mainly Chemero 2009. This chapter¹ analyzes Chemero's (2009) account (depicted in 8.2) and offers three

¹The main ideas of this chapter are taken from sections 3.3, 4 and 5 of Heras-Escribano and Pinedo(2015). Are affordances normative? *Phenomenology and the Cognitive Sciences*

different arguments (8.3.1, 8.3.2, and 8.3.3) to show that affordances cannot be considered as normative relations. In conclusion, affordances per se lack normativity. However, there is a sense in which the taking advantage of an affordance can be considered as a normative practice, but only if it is evaluated within the framework of social, normative standards in particular situations (this will be discussed in 8.4). This is tightly related to the ideas on normativity depicted in Chapter 6.

8.2 Are affordances normative? Chemero's (2009) proposal

As it has been introduced (see 5.3 and 5.4) Chemero's (2009) approach to affordances is relational and normative. First, he claims that affordances are "relations between abilities and properties of the environment" (Chemero 2009: 145). So affordances, contrary to Turvey (1992) or Reed (1996), would not be properties of the environment, but relations between abilities and features of the environment. For Chemero, these relations are normative, because if we accept that "like affordances, abilities are relations" (Chemero 2009: 145) and also that "there is something inherently normative about abilities", we can conclude that there is something inherently normative about affordances inasmuch as affordances are relational like abilities. Also, in order to avoid any doubt and to reinforce this idea, he explicitly claims that "[a]ffordances, which are only comprehensible in terms of norm-laden abilities, *are themselves normative*" (Chemero 2009: 218, italics added). If we pay enough attention to how Chemero depicts his view on affordances, we can notice that, according to him, affordances are relational properties between features of the environment and abilities, making those relations themselves normative too. Chemero's approach is, in this sense, similar to Dreyfus' (2005, 2007b, and sections 6.2.3, 7.3, and 9.1 of this dissertation) and also to that of the enactivists'.

As shown in 5.4, Chemero develops a new theory of affordances distinct from Turvey's (1992) and Gibson's (1979/1986), although he maintains the core assumptions of the ecological theory. Contrary to Turvey (1992), Chemero (2009: 145-6) claims that affordances should be considered as relational and normative properties instead of dispositional properties. According to him, the main disadvantage

of considering affordances as dispositions is that, like automatisms, dispositions are guaranteed to become manifest given the right enabling conditions. Dispositions, Chemero claims, never fail to manifest. According to Chemero, this does not always happen to abilities, because a person who takes advantage of the affordance of walkability, even in ideal conditions for walking, could fail to do so. And given that affordances (like abilities) are relations (Chemero 2009:145), affordances cannot be dispositional (because they are the relation between an ability and a property of the environment: they are not themselves properties of the environment). In addition, this view equates abilities with functions (because they both help the animal to survive –or helped its ancestors). For this reason, Chemero claims that “abilities can fail to become manifest; there can, that is, be a malfunction” (2009: 145). In the next section we will analyze in a deeper way the notion of normativity that is at work in Chemero's relational approach to affordances.

8.3 Some problems for Chemero's (2009) account

As we have seen, affordances, like abilities, are relational properties that are themselves normative, according to Chemero (2009:145,218). However, I consider this to be an incomplete characterization of the nature of affordances that leads to an unsatisfactory understanding of them. The arguments against Chemero's approach offered in this chapter are the following: first, Chemero equivocates perceptual error with action error; second, among ecological psychologists the historically standard view is that there is no room for perceptual error –as it is traditionally considered in philosophy and psychology– at the ecological scale, following Shaw's principle of symmetry (page 61); third, Chemero's approach to normativity is unable to face the paradoxical consequences that result from defending that it is possible to follow a rule privately, as Wittgenstein (1953) stressed in his argument against the possibility of a private rule-following practice (see 6.2.6.1 and 6.3).

As it has been shown throughout this dissertation, specially in Chapter 3, affordances are elements of the O-E systems (see specifically the section 3.1). But they are *perceptual* aspects. This means that affordances are aspects of the O-E system that can be detected by perceptual means. I emphasized an aspect of affordances that is essential to the ecological orthodoxy: affordances are *directly per-*

ceived through the *detection of ecological information* (mentioned in sections 3.2.4 to 3.2.6). Once the agent detects specific information, the agent perceives an affordance (a feature of the O-E system). The appearance of that information plus the detection of the agent conforms a situation in which the agent perceives *the possibility* to do something, and this is an affordance (see 5.1). If the round shape of a cup is detected by visual or tactile means, the agent perceives the possibility of grasping it. That is, the agent perceives the graspability of that object. Also, that affordance is directly perceived: there is no representational mediation in order to perceive it. The agent simply must explore the environment to encounter that specific information. According to Shaw's principle of symmetry (on page 61) and to the principles that guide ecological information (Michaels and Carello 1981), if an agent does not detect an affordance, it is not because she erroneously confused information for affordances with other kind of information; rather, it is because there was no information that specified the possibility for perceiving affordances. 'Misperception' in the ecological framework is not the same as 'error' as it is understood in cognitivist psychology or in philosophy: this notion as used in the ecological approach just means that there wasn't information available in the environment for the agent to perceive affordances. Misperception means lack of information, not error in a traditional sense. In this sense, there is no possibility of talking about errors within an ecological framework, as most ecological psychologists historically supported. I will come back to this issue in section 8.3.2.

If, according to Chemero, affordances, like abilities, are relations (Chemero 2009:145) and affordances are also normative (Chemero 2009: 218), this means that affordances are relations that are individuated through two elements: the feature of the environment and the abilities of the agent. Given certain feature of the environment and given certain ability, there is a relation between the two of them. And that relation (the affordance) is of a normative kind. Affordances inherit their normative character from abilities. At this point, I understand the motivations to support a relational approach to affordances, but I disagree with the idea that the relation (the affordance) between a feature of the environment and the ability of the agent is normative. First: if this were so, all affordances would be normative, and this would imply claiming that non-social agents could develop normative perceptual relations with the environment. This goes against the Wittgensteinian (and Rylean) insights developed in 6.2.6.1 and 7.3, because non-social agents cannot distinguish between 'it is correct' and 'it seems correct to

me'. If affordances were normative even for non-social agents, this would lead to the previous undesirable consequences discussed in Chapter 6: the concepts of 'right' and 'wrong' would be meaningless. Second, one can individuate an affordance as the perceptual relation between certain ability and a feature of the environment, but that does not make that relation one of a normative kind, especially if we take into account that the ecological approach does not make room for error because perception is direct, as it was mentioned before. Also, there is a third independent reason, specially related to Chemero's (2009) approach: within his view, Chemero confuses the perception of an affordance with the actions that result from taking advantage of it. Let's analyze in a deeper way these three different arguments.

8.3.1 Chemero's (2009) equivocation of perceptual error with action error

Perceiving an affordance is different from taking advantage of it. Chemero (2009) claims that affordances are normative relations and not dispositions. The problem is that dispositions always manifest in the right circumstances (sugar always dissolves when exposed to water, given certain conditions) but abilities are different: one can face the right circumstances for walking and yet fail to walk. And, according to Chemero, if affordances inherit their normative character from abilities, this means that one can fail to walk even when the agent perceives certain walkability in a specific situation. This is why affordances are taken by him to be normative. In this sense, Chemero (2009) is right: given that affordances are perceived thanks to a flexible behaviour, an agent can sometimes fail to give the appropriate response to the ecological information being detected. One can perceive an affordance of walkability, but then fail to walk. But that failure will be a failure of acting, not a failure of perceiving. So, one point should be made explicit: failing when *responding to an affordance* is something different from *failing when perceiving it*. This is why affordances are considered "meaningful *objects of perception*" (Richardson et al. 2008: 179, italics added; see also 3.1). One process is the perception of the affordance and other different process is the performance of the action in order to take advantage of that affordance. Thus, if affordances are the objects of perception (*i.e.*, the possibilities for action *and not the actions themselves*), we can distinguish between perceptual error and action error. An action error signifies

not performing an action properly; for example, intending to kick the ball and not kicking it, or intending to catch a ball and not catching it. Perceptual error means not identifying or discriminating something properly (*e.g.*, when someone claims to be seeing a goat but is seeing a dog; see 6.2.7). But this is not the case with affordances. The difference between perceiving an affordance and taking advantage of it is crucial in the classic ecological literature:

The *fundamental hypothesis* of the ecological approach to vision, elaborated at great length by Gibson (1966, 1979) is that the optical structure specifies its environmental source and that, therefore, mobile organisms with active visual systems that can pickup this information will see their environments and suitably *adjust their activity if and when they detect that information (and only then)* (Turvey et al. 1981: 243, italics added).

There is a difference, then, between the moment of perceiving an affordance and the subsequent moment of exerting the ability once the affordance is perceived. So, we can theoretically distinguish between these two moments (see 3.2.6), and this allows us to differentiate between perceptual error and action error. In conclusion, when Chemero claims that affordances are relations that inherit their normative character from abilities, this is misleading, because affordances are the objects of perception of ecological psychology. And, as objects of perception, they would only include perceptual errors, but not action errors.

Another example: the affordance of graspability is the relation between certain shape of an object and the ability to grasp of the agent. There is no need to claim that this relation is normative just because one can fail to grasp the specific object: the moment of performing the action of grasping is different from the moment of perceiving the graspability. Perceiving an opportunity for action is something different from taking advantage of it, and this is crucial, because even when ecological psychology supports the idea that perception-action is a continuous or looping process, this does not avoid the possibility to differentiate between perceiving an affordance in one temporal moment and taking advantage of the previously perceived affordance in another temporal moment.

It is true that action and perception are continuous and looping in the ecological approach. But the actions or movements that the agent realizes for perceiving an affordance are different from the actions that the agent has to realize when taking advantage of that affordance (see the previous quote of Turvey et al. 1981). In this sense, temporarily speaking, the actions that one exercises to perceive are different from the actions that one exercises for the subsequent actions after perceiving an affordance. Both actions are not related to each other.

A person may perceive the kickability of the ball but does not need to kick it in order to perceive it. Or she can kick and fail, but that failure is not related with the perception of the affordance. She can fail because of multiple factors: she could have had muscular problems, for example, and this may lead her to not kick the ball in the right way. But this has nothing to do with perceiving the affordance. However, she still possesses the ability to kick. In this sense, the individuation of the relation between the ability and the feature remains intact, and the failure is applicable not to the perception of the affordance but to the action of taking advantage of it, which is something completely different. If one claims that affordances are relations that inherit their normative aspect from the normativity of certain abilities, one is confusing the normative aspect of the ability to act in a certain way with the capacity to perceive something. Agents always perceive affordances when they detect the specific information in their environment (as we have seen in 3.2.4 and 3.2.10); another thing is whether they decide to take advantage of them or not, or even doing it in the right way if they decide to take advantage.

For example, I perceive a lot of affordances at this moment: I can grasp a lot of elements in my desk, I can climb it too, or throw some things through the window, etc. But I decide not to do it, or even do it clumsily and fall from the table or hit the wall. Also, animals perceive affordances in their environments, but they do not always need to respond to those opportunities for acting in order to perceive them. Thus, taking advantage of an affordance is a subsidiary consequence of perceiving the affordance itself. In this sense, the claim by Chemero (2009: 218) that “affordances, understood as norm-laden abilities, are themselves normative” confuses the perceptual aspect of affordances with the (contingently subsequent) action that the agent may or may not exercise correctly in order to take advantage of it.

8.3.2 There are no perceptual errors in ecological psychology

Once it has been shown that Chemero (2009) equivocates action error with perceptual error, someone could ask if there is also a possibility to talk about perceptual error in ecological psychology. As seen in the previous section, a typical error or mistake is taken to be, within psychology or philosophy, to wrongly perceive the non-ecological features of something and then apply the wrong concept to something that one perceives; for example, when one thinks that she saw a dog but it was really a goat. Error is roughly based on confusion. Might this idea be applied to ecological psychology? I think it might not. As we have seen in Chapter 3, ecological psychology is based on an informational approach, as Shaw's principle of symmetry states: "the environment specifies the information, which specifies perception, and perception specifies the information, which specifies the environment. This principle is symmetrical in that the environment, information, and perception determine one another" (Chemero 2009: 111, italics added). This means that if the environment does not specify information, information cannot specify perception: if there is no specific information for affordances, we will not succeed in perceiving them. This is why information and perception determine one another. This idea means that, in the ecological approach, misperception of affordances is not due to error: rather, misperception is just lack of information².

Before continuing with the ecological literature on error, I must recall one conceptual point: this means that perception is explained by the *laws of nature*. Laws do not make room for error. Planets follow the law of universal gravitation, but they cannot be mistaken when they follow it. Laws and norms are different, at least in the sense that norms allow for error in a way that laws don't. Thus, the nomological and the normative are different realms with different features (see 2.4.2.2). And, if ecological psychology is based on laws, hence there is no room for error in the traditional sense. In the following passages I reinforce this conclusion taking support from classic ecological psychologists.

There are various examples in the ecological approach that count in favor of the conclusion that there is no error, but lack of information, in the ecological approach

²I am thankful to David Jacobs, David Travieso and Lorena Lobo for discussions and fruitful comment on this issue.

(Michaels and Carello 1981, Heft 2001). Gibson (1979/1986: 142) himself claimed the following:

(...) an adult can misperceive the affordance of a sheet of glass by mistaking a closed glass door for an open doorway and attempting to walk through it. He then crashes into the doorway and is injured. The affordance of collision was not specified by the outflow of optical texture in the array, or it was insufficiently specified. He mistook glass for air. The occluding edges of the doorway were specified and the empty visual solid angle opened up symmetrically in the normal manner as he approached, so his behavior was properly controlled, but the imminence of collision was not noticed. A little dirt on the surface, or highlights, would have saved him.

Why is this paragraph important? At the beginning, Gibson uses the word 'mistaken', and this could mislead us into an interpretation according to which Gibson accepts that there are mistakes or errors in our ecological ways to perceive. But if one pays attention to the explanation (having Shaw's principle of symmetry in mind), one notes that with this word he did not mean 'error' in a traditional, normative sense (as I mentioned in 6.2.7). This is so because our ways to ecologically perceive a glass door are based on ecological information that specifies affordances: one just does not perceive doors or glasses, but opportunities for acting or restrictions to act. Why did the person crash? Not because he mistook an open doorway for a glass door in the same sense as one mistakes a dog for a goat (this is, based on non-ecological properties). He crashed just because the environment did not specify the affordance of collision. This is, he crashed because, according to Shaw's principle of symmetry, the environment didn't specify information, and this is why there was not perception of the affordance of collision ("the imminence of collision was not noticed"). This is why Gibson claimed that "a little dirt on the surface, or highlights, would have saved him": if the environment had specified information, the agent would have perceived the affordance, because information determines perception. Hence, there was no error in the traditional sense, but lack of information. A visually impaired person, for example, would perceive the affordance of collision by touching a glass with a cane, for example. In that case, the environment would specify information that specifies the affordances to be perceived.

This idea is a constant in the ecological literature. For example, in their influential work, Michaels and Carello (1981) claimed, after analyzing several cases of traditional perceptual error (such as illusions, inadequate information, etc.), that it is inadequate to apply the notion of ‘error’, as it is traditionally understood in the literature, to ecological perception. They support the Gibsonian approach discussed above according to which misperception is not error, but lack of information. Also, they consider that even those cases (such as the Müller-Lyer illusion (Gibson 1966: 312-3) and other illusions) in which there is no lack of information are not cases of erroneous perception. They say that these cases do not count as an argument in favour of erroneous perception in ecological psychology mainly because there are theoretical biases in the way scientists interpret the perceiver’s reports or actions. The following quote summarizes their view (Michaels and Carello 1981: 90-6):

Although there is considerable overlap, one can discern five such sets of circumstances to which the label “in error” has been attached to perception. We shall enumerate those circumstances and assert that the label “in error” was inappropriate. (...) Because the above cases are based on actual insufficiencies in information or perceptual apparatus, it is easy to see that calling them erroneous perception is unjustified. In the next three cases, however, the label “in error” derives from certain theoretical biases that are usually brought to bear in describing the situations. But in these cases, too, we show that it is inappropriate to say that the perceiver has erred. (...) [On illusions:] According to tradition, the perceiver is “in error”, but we would claim that the scientist is in error –that is, he or she is measuring the wrong thing. (...) In geometrical illusions and apparent motion, then, the disparity between some measure of the “stimulus” and a perceiver’s report is due to a confusion on the part of the measurer, between things and information. As in our earlier argument on ecological information instead of arbitrary measures of physical energy, the perception is not in error. (...) [F]ive types of situations were discussed: impoverished information, undetected information, illusion, biased descriptions of “third-party” events and perception restricted by theoretical assumptions. In all of these, perception has, by various theorists, been called “in error”. We claimed that, in all of these cases, “in error” is a misnomer.

However, some authors have tried to account for errors or illusions in an ecological way, especially Runeson (1988). In his paper, Runeson claims that sometimes there are situations in which there are various informational candidates that may contradict each other, because sometimes “*conflicting information* results because the motion-independent information remains present” (Runeson 1988: 297) when agents are in motion. This is, we can have an illusion in a static moment in which there are various informational candidates that contradict each other. If one moves (remember that the ecological approach claims that action and perception are a continuous looping that allows us to adjust our behaviour to the information present in the environment as I mentioned in section 3.2) then she would discard the conflicting informational candidates and she would perceive information for action, leaving illusions aside. But Runeson points to the idea that sometimes the motion-independent information remains while in motion³, so there would be illusions anyway. According to him, there would be room for illusions in ecological psychology.

Taking Michaels and Carello (1981) as a starting point, the answer to Runeson's argument is this: the way to get rid of this conflicting information is, simply, to keep acting until there are no left-overs of the motion-independent information. According to Michaels and Carello (1981: 95):

To those for whom perception must “tell all” in one brief glance (or touch, or sniff, etc.) or must guide the animal to some ultimate consummatory behavior, perception can be in error. This description, however, presupposes that perception is accomplished in an instant. More generally, it assumes that perception has a single, definite endpoint (...). In the ecological view, the purpose of perception is not to produce an endproduct (such as a percept), but to constrain actions in such a way as to continuously reveal useful aspects of the environment. Perception cannot be in error because no one moment in that event³ must stand as the last word on pragmatic truth. Thus, we are fooled by an hologram

³Runeson (1988) concludes that perceptual error must be included within ecological psychology after analyzing the case of the distorted room illusion. In the distorted room illusion “rooms are inevitably perceived as rectangular, and the effect is so strong that persons inside the room appear as dwarfs or giants, depending on where in the room they are standing—even changing their size as they move from one corner to the other” (Runeson 1988: 295). Here I focus on his view on conflicting information as his main argument for supporting the notion of error within ecological psychology.

until we try to touch it. (...) The mistake would be to take no action.

I think that this is a powerful line of response to Runeson (1988). Furthermore, even if someone insisted in using a concept of error in ecological psychology, that concept would be radically different to the one that is common currency in the philosophical debate on rule following and normativity (see 6.2.7). A minimal concept of error would fail to account for the demand that the agent must be capable of distinguishing between what seems correct and what is correct, and such a distinction is only possible within a social framework (see 6.2.6). This is the third, and independent, argument that is offered to challenge Chemero's approach.

8.3.3 Wittgenstein's argument and affordances as normative relations

So far I have provided two arguments against Chemero's approach to normativity: first, he equivocates perceptual error with action error. Second, I explored the possibility of talking about perceptual error in ecological psychology and, despite authors such as Runeson (1988), most ecological psychologists claim that there is no room for traditional 'error' or 'misperception' in ecological psychology. Now the third argument is one that has been showed before in this dissertation (see 6.2.6.1 and 7.3): the Wittgensteinian idea of the impossibility of a norm-establishing and norm-following practice by non-social agents. As it has been argued in Chapter 6, the idea of a private rule following and rule establishing practice leads to paradoxical consequences, those in which each agent would develop his or her own norms, so what may be right for one agent may be wrong for another. The consequence is that 'right' and 'wrong' would become meaningless. This is clearly a paradoxical consequence, and this is why we are forced to accept that normativity has a socially mediated character. In conclusion, a non-social agent, considered in isolation, cannot be a proper rule follower: its behaviour would not be normative. The problem with Chemero's approach (and also with the enactivist and the phenomenological and enactive approach developed in 7.3) is that, if affordances were normative relations, then every animal, social or non-social, would develop those normative relations within its niche. This leads to the paradoxical consequences that we have shown, and in my opinion it means a serious challenge to Chemero's view. This

challenge can also be posed to enactivism and phenomenology, especially to Dreyfus (as it was argued in 7.3). One can claim that a description in dynamical terms of a looping relation between an agent and its environment (be it an affordance or a Merleau-Pontyan line of force, as Dreyfus claims; see 9.1) is normative inasmuch as it improves the maximal grip. But, for all the previously discussed reasons, the possibility of improving maximal grip is not sufficient to make the relation normative. The social aspect and the possibility of error are needed. The agent could succeed in fulfilling the goal by improving maximal grip, but the presence of satisfaction or success conditions is necessary but insufficient to account for correctness conditions (see page 127): one can succeed in doing something even when she does not do it right.

So, in conclusion, even if the strength of the argument related to perceptual error in psychology may be open to debate, Chemero's account of normativity has no answer for the other two arguments (the confusion of perceptual error with action error and the impossibility of a private norm-following and norm-establishing practice).

8.4 Some affordances might be related to normativity, but for different reasons

As we have seen, perceiving affordances cannot be a normative practice. First, in the sense of Chemero (2009), they cannot be normative, relational properties because Chemero (2009) equivocates the perception of affordances with the agents' responses to them (but we have seen how, even when someone cannot exercise an ability correctly in taking advantage of an affordance, this is not directly related with the previous step of perceiving it). Second, and more important, the direct perception of affordances does not allow for perceptual errors. There is no error in a technical sense because affordances cannot be misperceived by definition (these are features of the O-E system, which they are full of information *related to the agent* and, as such, the agent perceives them directly, these processes leave no room for error, as Michaels and Carello (1981) claim).

In addition to these two reasons, there is a third explanation of why affordances

cannot be normative processes. This is because, given the main features of normativity presented in section 6.2, affordances are not socially mediated processes. Norms are socially mediated because social mediation allows for the correctness criteria that any action necessarily requires in order to be normatively evaluable (see 6.2.1). On the contrary, affordances are just a property of the environment related to agents. Claiming that affordances are the particular relations that agents establish with their environment would be difficult because those relations, according to Chemero (2009), are normative. We have seen previously in section 6.2.6.1 on page 136 why any normative relation between a non-social agent and a feature of its environment is problematic: it is hard for an agent-environment relation to pass the Wittgensteinian test of private norm following. As shown in that section and also in 6.3, the idea that a non-social individual establishes and follows its own norms ignores the need to open a space between believing that one is following a rule and actually following it. That is, it goes against the requisite according to which normative agents must recognize the possibility of error in their actions. The concepts ‘right’ and ‘wrong’ become meaningless in such a context, hence the paradox. This is the main argument that should force us to recognize the socially mediated character of norms. Given that affordances (when they are categorized as normative relations) cannot face the paradoxical consequences of private norm following, perceiving affordances cannot be a normative practice. Affordances cannot be normative relations because in those contexts there is no way to include the possibility of error.

However, there could be situations in which affordances should be considered as normative, but only because we can relate the successfully seizing of an affordance with the right thing to do in certain circumstances⁴. Once again, there could be the case (very common, indeed) in football in which the successfully perceiving and taking advantage of the kickability of a ball next to the opponent’s goal coincides with following a rule in this game. This is an example of the cases in which taking advantage of an affordance is identical with following a rule or performing a normative practice. But this does not mean that affordances are normative in a way that fits with Chemero’s approach: imagine an analogous situation in which the coach wants only one player to be the scorer, and tells the rest of her teammates that they should not kick the ball, but pass it to that particular player, even if

⁴I am thankful to an anonymous referee of *Phenomenology and the Cognitive Sciences* and to John McDowell for fruitful comments on this issue.

they have the possibility to score. This is a situation often found at the end of the league season: for instance, the team already has enough points to win the league and one of its players may end up being the top scorer of the league. In that case, the taking advantage of an affordance does not coincide with the rule that players should follow. The avoidance or the taking advantage of the kickability in both situations are such because we relate that affordance to the social practice, but that is not the same as claiming that the perception of an affordance occurs always in the context of a social practice, or that the same affordance hence should possess an ‘unique’ and ‘intrinsic’ normative valence (something that must always be avoided or something that must always be seized).

Thus, this plasticity of the normative character of affordances does not reveal a normative character inherited from certain abilities, even in the case of non-social agents; it only shows that, when we talk about rational and social animals, we can identify the taking advantage of affordances with certain rules to follow, depending on our interests and goals in different circumstances. Given that the valence can change depending on social, external practices, normative evaluability is not something that depends on the affordance itself. Affordances can be viewed *in relation to social practices*, but this is not the same as saying that they inherit the normative character from the ability: when affordances are normative it is due to the social, normative background that evaluates the pertinence of taking advantage of certain affordances in different contexts. However, this very idea shows that affordances cannot *always* be related to social practices and hence, unlike instances of rule following, they can be understood in isolation.

Contrary to what can be claimed by Chemero (2009), the fact that we can make it coincide with our practices, solely depending on our interests, is what makes explicit that there is no trace of normativity in this kind of relational properties or processes. Thus, the seizing of some affordance can be classified as wrong or right *given a social, external background as a reference*, and not because this is a special trait within this relational property.

8.5 Conclusion

As we have seen, affordances are perceptual properties that cannot be normative in Chemero's (2009) sense. Far from this being a problem, affordances enrich our ways of dealing with the world, and, by explaining their features, we can account for a wide range of our everyday perceptual phenomena. However, it is possible to include our dealing with affordances under a normative perspective if we take an external social normative background as a reference, as we have seen in the last section.

The insistence on separating the perception of affordances from rule-governed activities is motivated by a lack of sympathy towards any project that tries to naturalize normativity by normativizing nature (Heras-Escribano et al. 2015, see especially 7.3). While I take as a starting point the idea that perception is an agent-level phenomenon and cannot be understood in mechanistic, sub-personal terms, I also believe that no common umbrella can cover all the agential. Against someone who, despite the consensus within ecological psychology in talking of lack of information rather than of perceptual error, insisted on claiming that there could be a natural use of 'error' suitable for ecological perception but not, say, for a malfunctioning clock the answer would be: the demanding sense of 'error', which is linked to the traditional discussion of normativity initiated by Wittgenstein (see 6.2.7 and 6.3), serves to separate a realm where there is room not only to distinguish between success and failure (see 6.2.1), but also for agents to acquire, through training and initiation in a way of life, the capacity to distinguish between what seems correct and what is correct and, with it, to acquire the very concept of error. Errors, in the philosophically relevant sense, can only be made by creatures that possess the concept. Affordances delimit the ecological and agential from the mechanical or physical. Errors delimit the normative and social from the merely agential.

Chapter 9

El debate Dreyfus-McDowell sobre la relación entre experiencia y razón

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9.1 Introducción: una Batalla de Mitos

El debate¹ entre Hubert Dreyfus y John McDowell es un debate atípico dentro de la literatura filosófica. Pese a que ambos filósofos comparten muchas ideas que son el punto de partida de sus respectivas filosofías, finalmente llegan a conclusiones que, aún partiendo de compromisos similares, no pueden ser más diferentes entre sí. Aunque ambos están de acuerdo en el rechazo al Mito de lo Dado y apuestan por defender el papel determinante de la experiencia perceptiva dentro de nuestras

¹Este capítulo está basado sustancialmente en Heras Escribano, M. (2014). Razón y experiencia: El debate McDowell-Dreyfus. *Análisis Filosófico*, 24 (2): 203-27. Agradezco a Jesús Vega, Ignacio Vicario, María Muñoz, Alex Díaz, Alberto Murcia, Javier González de Prado y Arancha San Ginés sus comentarios a mis ideas sobre el debate.

habilidades cognitivas, Dreyfus opta por una fenomenología que rechaza cualquier carácter racional de la experiencia mientras que McDowell abraza la idea de que la experiencia es plenamente racional (ya que el contenido de nuestros estados perceptivos está conceptualmente articulado).

El debate es actual y perenne. Surge de la publicación de *Mente y Mundo* (McDowell 1994), una de las obras más influyentes de la filosofía contemporánea, y se apoya tanto en datos empíricos recientes como en la influencia de las posiciones filosóficas continentales más en boga. Por otra parte, tiene como núcleo probablemente la pregunta más repetida de la historia de la filosofía: si somos animales racionales, en qué sentido lo somos y cómo afecta esto a nuestro lugar en la naturaleza.

La tesis principal de McDowell (1994) es que la experiencia perceptiva está permeada de racionalidad, lo cual implica que nuestras percepciones están repletas de contenido normativo y, además, ese contenido es plenamente conceptual. Contra esta tesis reaccionará Dreyfus (2005), iniciando el debate que van a mantener ambos sobre el estatus del ser humano como animal racional. Analicemos en primer lugar la propuesta mcdowelliana.

Mente y Mundo (1994) aportó, entre otras innovaciones, un nuevo enfoque a la hora de analizar una noción tan capital en Filosofía como la de ‘experiencia’. Podría decirse que la obra de McDowell revitalizó el concepto, llevándolo a un nivel distinto frente a como estaba considerado por la Filosofía hasta entonces (principalmente gracias al fundamentalismo epistemológico) y a la vez consiguiendo evitar las críticas del coherentismo a esa noción. Si el fundamentalismo afirmaba que era posible justificar nuestras creencias simplemente a través de nuestras conexiones causales con el mundo, no era de extrañar que la experiencia jugase un papel capital en esta teoría epistémica, cuya influencia alcanza desde el empirismo clásico hasta el Círculo de Viena. Así, los objetos de la percepción directa del mundo serían datos de los sentidos o alguna otra propiedad ‘dada’ a nosotros de manera causal a través de nuestra experiencia. Esta es la idea que Sellars (1956) calificó como el ‘Mito de lo Dado’ y Davidson (1974) como el tercer dogma del empirismo. El problema de este mito (que algo no conceptual sirva como justificación de algo conceptual) es que es imposible derivar inferencialmente conocimiento de algún contenido empírico dado que las relaciones inferenciales solo son posibles entre estructuras proposicionales con contenidos conceptualmente articulados (ver 10.2 y

en la sección A.3.5 del Apéndice). Al tener nuestras creencias esa forma proposicional y al estar relacionadas inferencialmente, es extraño concebir la posibilidad de que algo no proposicional ni conceptual entre en relación inferencial con nuestras creencias, sirviendo de justificación para ellas. Por lo tanto, si lo dado no es un contenido conceptualmente articulado ni posee una estructura proposicional, parece que se produce una incoherencia explicativa a la hora de afirmar, como hace el fundamentalista, que es posible adquirir conocimiento proposicional y conceptualmente articulado a través de un medio que no ofrece tales contenidos (McDowell 2009: 256).

Por ello, la solución que propone el coherentismo al Mito de lo Dado consiste en rechazar la experiencia como fuente del conocimiento (ya que hay una barrera clara entre lo causal y lo conceptual) y afirmar que, debido a los requerimientos señalados anteriormente, solo una creencia puede justificar otra creencia (Davidson 1982). Así, la justificación de nuestras creencias no residiría en un nexo causal con el mundo sino en las relaciones inferenciales que la creencia en cuestión posee con el resto de nuestra red de creencias.

McDowell (1994) entiende que, si bien hay motivos suficientes para abandonar el Mito de lo Dado, sería un paso innecesario eliminar el papel de la experiencia junto con él. Así, el coherentismo habría supuesto una solución demasiado exagerada y nos habría dejado sin una justa fricción con el mundo, privándonos de la experiencia como el medio más primitivo para adquirir conocimiento. ¿Cómo sería posible entonces reivindicar el papel de la experiencia como fuente de conocimiento sin caer en el Mito de lo Dado? McDowell articula para ello una propuesta conceptualista: todo objeto que podemos percibir está articulado conceptualmente; o, si se quiere, todos nuestros contenidos perceptivos tienen naturaleza conceptual. Así, percibir cierta tonalidad de rojo no consistiría en que el mundo presenta al sujeto como dado algún dato de los sentidos de carácter bruto y no-conceptual; más bien, percibir cierta tonalidad de rojo y no otra es posible gracias a que el sujeto es capaz de discriminar ese rojo de otros tonos, con lo cual es capaz de individuar esa tonalidad y diferenciarla de otras cuando se le presenta en el mundo. Ya no hay datos de los sentidos puros, sino discriminación de objetos perceptivos con contenido conceptual. Además, su naturaleza conceptual permite que pueda ser discriminado en otros escenarios y ser, a su vez, el contenido de otras proposiciones. Esto está a la base de la propuesta mcdowelliana de los sentidos demostrativos o sentidos *de*

re (la sección A.3.2 analiza más en profundidad este concepto).

McDowell se opone a la idea de que la única forma de pensar sobre objetos y propiedades sea *de dicto*, es decir, que consista en caracterizarlos en términos generales. Los sentidos *de re* o dependientes del objeto, en contraste, dependen para su existencia e individuación de la existencia del objeto: ningún conjunto de predicados generales es suficiente para individuarlos. Cuando se atribuye una creencia *de re* o demostrativa se pone al sujeto en relación conceptual con aspectos concretos y singulares del mundo de los que trata la creencia (McDowell 1984). Aunque no están introducidos detalladamente en *Mente y Mundo*, es a través de los sentidos demostrativos como McDowell es capaz de devolver a la escena epistémica el papel de la experiencia sin caer en la incoherencia del Mito de lo Dado, ya que la relación con el mundo no es meramente causal sino conceptual, y así es posible que esos pensamientos sobre aspectos concretos del mundo puedan usarse como contenido en otras creencias.

El rechazo del Mito de lo Dado y la reivindicación de la experiencia a través de los sentidos demostrativos conlleva que nuestra experiencia, al contrario de lo que ha señalado el empirismo, es también conceptual. Pero esta nueva manera de reintroducir la experiencia tiene consecuencias que afectan a algo mayor que nuestras habilidades epistémicas: este giro mcdowelliano nos permite vernos a nosotros mismos no a través de nuestra primera naturaleza biológica (guiada por respuestas mecánicas a estímulos causales), sino a través de esta segunda naturaleza conceptual y normativa que sirve de escenario para comprender cómo justificamos nuestras acciones (ver 6.2.3). De ahí se sigue que somos animales racionales precisamente porque nuestra experiencia, al ser conceptual, está permeada de racionalidad (McDowell 1994:85).

Dreyfus también parte de la crítica al Mito de lo Dado para, paradójicamente, defender una postura contraria al conceptualismo de McDowell. Su estrategia consiste en acusar a McDowell de que para rechazar el Mito de lo Dado se ha comprometido innecesariamente con otro mito: el *Mito de la Omnipresencia de lo Mental*. Este mito es idéntico a la idea de equiparar todo proceso perceptivo con un proceso racional. También acciones irreflexivas de nuestro día a día como abrir una puerta o guardar el espacio adecuado entre personas en un ascensor (lo que Dreyfus deja caer bajo la etiqueta de *skilfull coping*) serían ejemplos prototípicos de habilidades que no necesitan ser entendidas como conteniendo un componente

racional. Dreyfus señala que esto es un mito porque para su postura, que entronca con la tradición fenomenológica, existen aspectos cognitivos que no son racionales. A diferencia de los defensores del contenido no-conceptual, Dreyfus no cree que en los estados perceptivos se adquiriera un contenido no conceptual a través de procesos meramente causales. En cambio, la relación perceptiva no es causal aunque sí normativa, y su contenido no es conceptual, sino más bien fenoménico. Con ello, se distancia a la vez del fundamentismo, del causalismo del contenido no conceptual y del conceptualismo de McDowell. Opta por separarse de McDowell ya que afirmar que nuestros contenidos perceptivos son conceptuales es, para Dreyfus, caer del lado del intelectualismo, que es una posición tan errónea para él como lo es el empirismo de los datos de los sentidos. Sobre esta idea reconstruirá Dreyfus su doble crítica a McDowell: primero, señalando que la percepción y la acción no son procesos racionales porque no son intelectuales, valiéndose para ello de la figura del experto; segundo, atacando la idea de que cierto contenido de la experiencia no puede ser, por su naturaleza, un contenido susceptible de formar parte del contenido de una proposición (el llamado ‘argumento de la unión’ o *merging argument*). Veremos cómo se desarrolla este doble ataque más en detalle en las secciones posteriores.

Frente a las dos posturas previamente mencionadas (empirismo y conceptualismo), Dreyfus desarrolla una tercera vía basada en la fenomenología de Heidegger, Sartre y Merleau-Ponty, donde se postula un acceso por parte de los agentes a “un mundo organizado en términos de sus necesidades, intereses y capacidades corporales sin que sus mentes necesiten imponer significado sobre algo asignificativo dado” (Dreyfus 2007c:9). Así, rechaza que la respuesta que damos a ese algo dado sea causal, pero no por ello habría de ser conceptual (ya que precisamente para Dreyfus ‘conceptual’ y ‘racional’ implica que es un proceso ‘descontextualizado’). Por lo tanto, Dreyfus mantiene que nuestras capacidades corporales son normativas sin ser conceptuales, y ello implica que no todos los procesos son racionales. Así pues, la tesis central de *Mente y Mundo* se encuentra en entredicho por la crítica de Dreyfus.

Es de justicia iluminar el lado constructivo de la propuesta dreyfusiana a la sombra de las críticas que inician el debate. Dreyfus no solo ofrece críticas puntuales a la teoría de McDowell, sino que ofrece en el fondo todo un nuevo proyecto que sirva para entender la experiencia y nuestra naturaleza como seres cognitivos. La tesis que pasa a defender Dreyfus es a estas alturas de sobra conocida y, además, bas-

tante intuitiva: Dreyfus se ve obligado a defender una aproximación fenomenológica porque si la experiencia es racional tal y como McDowell defiende, ello implicaría, según Dreyfus, que se perdería el carácter situado y corpóreo de la percepción y la acción, idea que parece a todas luces irrenunciable para cualquiera que se comprometa con el papel de la experiencia como medio para obtener conocimiento.

Para ello, Dreyfus reivindica el papel de la experiencia como una relación de carácter normativo aunque no conceptual con el entorno. Esta normatividad sin racionalidad se ejemplifica, como se ha mencionado, a través de dos ideas principales.

Primero, rescata el papel del experto (ver 9.3) como alguien que no necesita ningún tipo de mediación conceptual para realizar una práctica con maestría, ya que “para volvernos expertos debemos pasar de un seguimiento de reglas descontextualizado a un modo de hacer frente [al entorno] más involucrado y específico para cada situación” (Dreyfus 2005:7).

Segundo, promueve una nueva ontología de la percepción, destacando las contribuciones de algunos fenomenólogos, especialmente de Heidegger y Merleau-Ponty, cuyas nociones de ‘ser-para-la-mano’ y ‘líneas de fuerza’ se unen con otras más alejadas del *mainstream* fenomenológico como la noción de ‘*affordance*’, ubicada dentro de la psicología ecológica (Gibson 1979), como se argumentará en la sección 9.5.

Todas estas ideas para Dreyfus tienen en común que la percepción y la acción están basadas en relaciones normativas con el entorno y que por tanto son contexto-dependientes, evitando así cualquier relación con propiedades causalmente ‘dadas’. Para Dreyfus, McDowell cae en el intelectualismo aunque niegue el Mito de lo Dado precisamente por extender lo racional a lo perceptivo. Dreyfus entiende que McDowell abraza un intelectualismo ya que si para McDowell lo perceptivo es racional en tanto que ambos comparten un carácter conceptual, ello implicaría que los estados perceptivos serían independientes del contexto. De ahí la supuesta onnipresencia de lo mental (equiparado a ‘racional’) en McDowell, que desde una perspectiva fenomenológica dreyfusiana se entiende como un mito a la altura del denunciado por Sellars.

Pese a ello, es necesario detenerse a analizar la acusación de intelectualismo implícita en el ataque a McDowell. Para Dreyfus, el conceptualismo y el norma-

tivismo de McDowell le llevarían a defender un tipo de intelectualismo por los siguientes motivos: Si Dreyfus entiende que McDowell defiende el carácter normativo de nuestros estados perceptivos debido a su articulación y contenido conceptual, ello conllevaría que McDowell defiende que toda acción o percepción con contenido es racional. Y eso a su vez implicaría que si es racional, es un producto de un proceso *intelectual*: percibir o actuar consistiría en la emisión comportamental de un *output* producto de una *orden explícita* computada dentro de la mente. Contra esta idea, Dreyfus acude al comportamiento no inferencial ni intelectual que le proporciona la figura del experto: el experto no sigue normas en este sentido (computando órdenes explícitas en forma de proposiciones generales), sino que está acoplado con el entorno y reacciona a elementos salientes o significativos particulares de manera eficiente. Pese a ello, existe un problema con la acusación de Dreyfus: como se irá viendo a lo largo del debate, no existe en el planteamiento de McDowell un solo atisbo de intelectualismo a la hora de comprender el seguimiento de reglas o cualquier tipo de comportamiento de carácter normativo.

Pese a la acusación de intelectualismo, en el transcurso del debate McDowell aclara que, desde el principio, toda la discusión ha surgido por un malentendido de Dreyfus a la hora de entender cómo se articulan desde su enfoque la experiencia y la racionalidad. La racionalidad en McDowell nunca ha de entenderse, tal y como cree Dreyfus en el debate, como la habilidad de un 'yo' que es capaz de distanciarse del entorno para realizar inferencias partiendo de proposiciones generales que no atiendan a los detalles relevantes del espacio perceptivo. Por el contrario, para McDowell el espacio perceptivo es una parte del espacio de las razones. Esta afirmación incluye dos ideas: primero, que la racionalidad funciona también atendiendo a los elementos particulares relevantes del entorno, no solo de manera abstracta; segundo, que podemos reivindicar un carácter normativo para la percepción y para la acción *precisamente* porque la percepción y la acción son conceptuales. Así, al decir que la experiencia está permeada de racionalidad, McDowell no entiende que la normatividad de la percepción y de la acción consista en seguir reglas generales explícitas, sino precisamente lo contrario: reivindica el papel contexto-dependiente de la experiencia y su contenido que, al ser conceptual, actualiza nuestras capacidades racionales (tal y como se señaló en 6.2.4). Los sentidos demostrativos o *de re* son relaciones que el sujeto mantiene, en su percepción, con aspectos concretos y particulares del mundo. En ese sentido, la postura de McDowell es claramente wittgensteiniana y ryleana, ya que para estos autores conocer un concepto se ase-

meja a dominar una técnica o poseer una habilidad (y toda técnica o habilidad se pone en juego siempre en un contexto concreto).

Por ello, el enfoque conceptualista de McDowell, más que un estricto intelectualismo, es un seguimiento ciego o no-explicito de reglas (tal y como se discutió en el Capítulo 6) donde podemos responder a elementos particulares del entorno precisamente porque nuestra percepción no tiene solución de continuidad con el resto de nuestras habilidades conceptuales. McDowell extiende el reino de lo conceptual a la experiencia, y precisamente gracias a esto la experiencia queda reivindicada como un puente entre nuestra mente y el mundo. En la racionalidad descrita por McDowell no hay un ‘yo’ separado de su entorno que monitorice lo que está ocurriendo y que ponga en marcha procesos inferenciales que trabajen con los datos que llegan a través de la percepción. Por el contrario, nuestro modo de percibir es una parte de nuestras capacidades racionales, y no es distinta en su naturaleza al resto de las habilidades mentales que poseemos. Lo conceptual no viene siempre de la mano de lo inferencial. McDowell (2007: 368-9), a la hora de argumentar por qué la percepción o la experiencia está permeada de racionalidad, proporciona el argumento definitivo en este ejemplo:

Considera el atrapar un objeto volador. Cuando un agente racional atrapa un *frisbee* está poniendo en práctica [*realizing*] un concepto de una acción. En el caso del agente habilidoso, no lo hace poniendo en práctica otros conceptos de acciones (...) Sino que está poniendo en práctica un concepto; digamos, atrapar *esto* (...) Cuando un perro atrapa un *frisbee* no está poniendo en práctica ningún concepto práctico; en sentido relevante no tiene ninguno. Afirmar que la agente racional, a diferencia del perro, pone en práctica un concepto a través de una acción es afirmar que su acción, bajo una especificación que captura el contenido del concepto práctico que está llevando a cabo, está dentro del alcance de su racionalidad práctica –incluso si solo le preguntasen por que cogió el *frisbee*, ella respondería “por nada en concreto, solo lo sentí así”.

La idea que defiende aquí McDowell es que los contenidos de nuestras percepciones y acciones son racionales porque son susceptibles (tienen la potencialidad) de

formar parte de una justificación de una acción incluso si la respuesta es indeterminada o no concluyente. Así, se pasa de una explicación en términos de contenidos conceptuales a una explicación en términos de habilidades conceptuales: es el salto que se da de un enfoque descriptivista (donde se analizan estados perceptivos o mentales concretos) a un enfoque normativista (donde se tiene en cuenta no el estado concreto, sino las habilidades del agente a la hora de tratar con el entorno). Un demostrativo ('esto', 'este rojo') es un concepto ya que puede ser reconocido y discriminado por el agente cuando vuelve a percibirlo en otros contextos. Esta habilidad implica que las acciones que permiten identificar cierto objeto tienen condiciones de corrección (si en el contenido de esa acción el demostrativo está incluido en una proposición). Identificar un mismo objeto en otro contexto conlleva poner en marcha muchas capacidades y aspectos racionales (identificación, discriminación, fenómenos como la posibilidad de error, etc.) que entran dentro del ámbito de lo normativo (ver de nuevo 6.2.1). La clave para entender esto está en considerar que estas respuestas son normativas porque precisamente son conceptuales; así, el percibir y el actuar están imbuidos de normatividad debido a que el contenido demostrativo de esa acción o esa percepción tienen la potencialidad de formar parte de una justificación debido a su naturaleza conceptual.

De este modo, no hay un salto entre nuestra experiencia y nuestra racionalidad: tanto nuestra experiencia como nuestras creencias, perceptivas o no, poseen la misma forma proposicional compuesta por conceptos, ya sean demostrativos o no. Si partimos entonces de que nuestras habilidades racionales llegan allá donde se encuentren nuestras capacidades justificatorias, podemos afirmar que si en nuestra experiencia no existe un episodio que sea incapaz de formar parte como contenido de una posible justificación, con justicia debemos concluir que la experiencia está, con toda razón, permeada de racionalidad. A esto se refiere McDowell con que Dreyfus le ha malentendido, ya que claramente dentro de esta perspectiva normativista de corte ryleano-wittgensteiniano la racionalidad es algo que se actualiza en cada contexto por los contenidos conceptuales demostrativos y es, por tanto, no-intelectualista.

Por ello, McDowell acusa a Dreyfus de que en su afán por criticar su postura acusándola de intelectualista le ha llevado a defender otro mito: el *Mito de la Mente como Separada*, en la que encontraríamos una mente dividida en dos tipos de procesos: los de percepción-acción, por un lado, en los que no habría ninguna

capacidad racional presente, y los procesos cognitivos racionales, por otro lado, en los que sí habría un ‘yo’ controlando sus acciones. Este Mito dreyfusiano queda invalidado, desde una perspectiva mcdowelliana, cuando Dreyfus es incapaz de poder negar la posibilidad de que, aunque el objeto de una experiencia puede no ser conceptual en el momento en que se percibe (como el acto de coger el *frisbee*), si lo es *potencialmente* cuando se puede justificar esa acción (o al menos se acepta la pertinencia de la pregunta “¿por qué lo has hecho?”). Ahí nos damos cuenta de que esa habilidad no se puede separar de cualquier otra –principalmente de la lingüística, que es la que permite la justificación. Así se entiende que la racionalidad no sea otra cosa que reconocer que tenemos la habilidad de justificar potencialmente cualquier acción que realicemos, o al menos ser capaces de entender la demanda de razones por parte de otros agentes.

Esta perspectiva normativista de McDowell (que se centra en cuál es la naturaleza de las habilidades) supone una clara ventaja frente a la postura descriptivista de Dreyfus (centrada en explicar los contenidos concretos de procesos puntuales), como se ha visto de manera general en la sección 2.4. Y es una ventaja porque al fin y al cabo, para explicar en qué consiste ser un agente racional, parece que no basta con señalar en qué momento del tiempo comenzamos a serlo (tal cosa sería objeto de alguna investigación de tipo empírico, no conceptual).

Al contrario, cuando se analiza filosóficamente qué significa que el ser humano es un ‘animal racional’ es necesario explicar qué significa poseer ciertas habilidades caracterizadas como racionales. Para ello, la mejor manera de explicar nuestras habilidades pasa por adoptar una perspectiva normativista frente a una postura descriptivista o factualista (en la que ciertos estados concretos, tomadas como hechos, agotarían el carácter o aspecto racional que se está buscando). El normativismo cree que el aspecto normativo y racional de nuestras habilidades no puede reducirse a los hechos que meramente lo ejemplifican.

En cambio, analizar el carácter normativo de una habilidad supone explicitar los compromisos que los agentes adquieren cuando se ha de llevar a cabo (por ello, aunque el contenido de la respuesta no sea satisfactorio o determinado, el mero hecho de que un agente comprenda o acepte la pertinencia de una pregunta es motivo suficiente para dar por hecho que ese ser con el que se dialoga es un ser racional). Lo relevante para el normativismo no son los contenidos, sino las habilidades que los agentes poseen y los compromisos que estos adquieren (ver

sección 2.4.2). Este movimiento final nos permite comprender cómo la postura de McDowell toma ventaja sobre la de Dreyfus, ya que es posible desde una perspectiva normativista comprender mejor cómo la experiencia adquiere ese *carácter unitario* que posibilita el conocimiento a través de ella. Ese carácter unitario, lejos de ser un hecho empírico concreto al que señalar, es una condición previa que posibilita el conocimiento y que queda ejemplificada cada vez que el sujeto desencadena un movimiento en el espacio de las razones.

En los siguientes apartados se profundizará en los aspectos más relevantes sobre los que los autores inciden a lo largo del debate. En concreto, se tendrán en cuenta las tesis principales sobre el papel del experto, la posibilidad del contenido no conceptual, el *merging argument* de Dreyfus y las diferentes maneras de entender la naturaleza de la experiencia, tanto de manera conceptual como fenomenológica.

9.2 Fenomenología y kantismo: ¿qué es entonces la actividad conceptual?

Como hemos visto, la concepción mcdowelliana de la experiencia implica, aunque no se haya explicado profusamente hasta ahora, que esta se nos presenta de manera *unitaria*. Ese rasgo unitario está a la base de la naturaleza conceptual de la experiencia en la teoría de McDowell. Una pregunta pertinente pasa por tratar de entender qué significa que la experiencia tenga un carácter unitario y qué se gana enfatizando esto frente a la fenomenología dreyfusiana. Con ello se comenzará esta sección.

Es difícil comprender las motivaciones del conceptualismo mcdowelliano sin acudir al kantismo. El texto de Pippin (2013: 91-109) dentro del volumen analiza las fuentes de las que se nutre McDowell para afirmar que la experiencia es conceptual y con ello rechazar la idea del contenido no conceptual de la experiencia. Los no conceptualistas defienden que ciertos aspectos de la cognición poseen contenido no articulado conceptualmente y, por lo tanto, el modo en que se adquiere esa información responde a meros ‘desencadenamientos causales’ (*causal triggerings*). Pippin señala acertadamente que la fenomenología de Dreyfus no se sitúa en el lado de los no-conceptualistas. En cambio, Dreyfus se agarra a la noción de

‘experto’ y de cómo estos no necesitan descansar sus acciones en normas explícitas para relacionarse con el entorno. Y a su vez esto conlleva la necesidad de explicar cómo el trato del experto con el entorno puede ser una actividad con contenido (2013:92). Puede que para Dreyfus el contenido no sea conceptual, pero sí es un contenido fenoménico (merleauPontyano si se quiere) al definirlo como ‘contenido motivador’ (lo cual sería una respuesta disposicionalmente diferenciada a ciertas situaciones, pero nunca guiada por normas generales), o incluso sería susceptible de ser tipificado desde un enfoque neo-gibsoniano al introducir Dreyfus la noción de *affordance* (que vendrían a ser las distintas oportunidades para la acción que tienen los sujetos en sus entornos –como, por ejemplo, la posibilidad de agarrar o esquivar objetos, como se ha visto en el Capítulo 3). Por ello, Dreyfus puede decir que estas acciones no poseen contenido conceptual en absoluto, pero continúa enfatizando que no serían relaciones causales, sino normativas. Lo que busca explicar Pippin es que para defender las diferencias entre estos contenidos hay que apelar a diferentes modalidades de lo mental y su capacidad para explicar la pluralidad de estos contenidos. La clave, claro está, consiste en qué descripción se ofrece de las diferentes modalidades. En ese sentido, la clave McDowelliana consiste en enfatizar el carácter unitario de la experiencia como rasgo esencial de esa modalidad, lo cual conecta en su enfoque con su naturaleza conceptual.

McDowell, a diferencia de Dreyfus, parte de la apercepción kantiana (Pippin 2013: 93-4). La apertura al mundo a la que se refiere McDowell tiene que ver con la apercepción kantiana en tanto que no puede haber un ‘yo’ separado de la experiencia porque precisamente ese ‘yo’ es el que permite que exista una unidad de lo que se percibe, que es la condición mínima de la experiencia (esa experiencia es mi experiencia, y lo es en tanto que se me presenta como un escenario ordenado de eventos). Aunque a través de algunas acciones podamos enfrentarnos al mundo igual que los animales (las *affordances* serían un ejemplo) y ello suponga una manera de conectar las distintas capacidades perceptivas entre seres tradicionalmente considerados no racionales con los seres racionales, eso no significa que esa explicación causal o fenomenológica pueda dar cuenta de los rasgos distintivos que constituyen la experiencia humana (en concreto, el rasgo específico que enfatiza McDowell es la unidad de la experiencia). McDowell considera que lo que está en la base de la apercepción kantiana y su carácter unitario son nuestras capacidades conceptuales, el hecho de que los objetos de nuestra experiencia estén conceptualmente articulados. La conexión que se da entre nuestras habilidades racionales

y nuestras habilidades perceptivas es de origen kantiano porque McDowell recoge la idea de Kant por la cual en el entendimiento (que es el reino de los conceptos) “la misma función que da unidad a las distintas representaciones en un juicio también da unidad a la mera síntesis de varias representaciones en una intuición”² (A79/B104-5). Así, existe una función de naturaleza conceptual que da unidad a nuestros pensamientos, ya sean de tipo perceptivo o de un tipo más abstracto (recordemos que el contenido de un estado perceptivo en McDowell (1994) es una proposición que podría ser el contenido de un juicio sobre aspectos concretos del mundo). El ‘yo’ que es consciente de que se sintetizan normativamente mediante la apercepción las diferentes representaciones subjetivas en Kant es el mismo del que McDowell afirma que es capaz de usar su experiencia como justificación de su acción en el juego de dar y pedir razones. Es ese carácter normativo o conceptual del entendimiento el que proporciona, desde Kant, un criterio de demarcación que divide a los seres mentales de los seres no mentales en función de sus capacidades normativas o conceptuales (Brandom 2009).

Esa capacidad de tener una experiencia unitaria es lo que proporciona que nuestra experiencia tenga contenido gracias a que los objetos de la experiencia no son las distintas representaciones particulares subjetivas, sino todas las posibles unificadas, *normativamente*, bajo un único concepto. Por ello, el viejo eslogan kantiano según el cual *las intuiciones sin conceptos están ciegas* no implica que primero se produzca un proceso perceptivo y tras este proceso los conceptos se apliquen sobre él. No hay doble proceso: más bien existen percepciones porque existe un único proceso que da unidad a todo el contenido de la experiencia. De ahí que en sentido mcdowelliano la experiencia esté permeada de racionalidad y precisamente por eso sea incorrecta la idea del contenido no conceptual de la experiencia, porque implicaría un doble proceso y un riesgo de caer en el Mito de lo Dado: si la experiencia no estuviese gobernada por la misma función que da unidad al resto del pensamiento, los objetos de la percepción serían de un tipo distinto al de los que tiene acceso la racionalidad y habría un abismo insondable donde se daría esa incoherencia mítica por la cual algo sin forma conceptual pasaría a ser contenido de una proposición. En cambio, precisamente por esta función unitaria común podemos acceder al mundo: nuestras habilidades conceptuales no son un velo o una frontera que nos separe del mundo, sino una condición, un puente que posibilita el conocimiento.

²La traducción es propia.

Esa apelación a la unidad de la experiencia y su conexión con el resto de nuestras habilidades de manera uniforme frente a la propuesta fenomenológica y dividida en dos tipos de procesos de Dreyfus es la gran ventaja de McDowell, que propone una teoría del acceso epistémico más sólida que la de Dreyfus (Noë 2013:186) al no explicar este último autor cómo algunos objetos de la percepción pasan a ser analizados de manera racional.

9.3 El argumento del experto

Pese a que Dreyfus no desarrolle una teoría tan sólida del acceso epistémico, sí desarrolla dos argumentos claros a la hora de atacar la propuesta mcdowelliana. Analicemos el primero. Dreyfus se escuda en que la naturaleza de las acciones que regulan al agente con su entorno son normativas pero no conceptuales en el sentido de que no están guiadas por normas o reglas explícitas, sino que se produce un acople entre entorno y agente no mediado por un 'yo'. Para ello, como hemos visto, se apoya en la figura del experto como alguien que para optimizar su respuesta al entorno precisamente no computa información antes de realizar su acción, sino que logra acoplarse con los elementos que le rodean sin ningún tipo de mediación mental (Dreyfus menciona como ejemplos prototípicos a un jugador de ajedrez relámpago o un jugador de *baseball*). Pippin niega esta visión del experto como alguien que no es un seguidor de normas. De hecho, para Pippin el experto ha de necesariamente seguir normas, porque seguir una norma no es computar proposiciones o algoritmos en la cabeza para transmitirlos en forma de acción. Ser un experto es ser capaz de dar la respuesta adecuada ante ciertos elementos del entorno de una manera eficiente, pero ello no implica necesariamente que la eficiencia no esté guiada por normas o reglas. El experto no juega rápido y eficientemente porque juegue sin seguir una regla, sino que lo hace así porque está tan imbuido de la norma que su seguimiento le permite realizar esa acción a niveles de exigencia fuera de lo habitual. Esta manera de sentirse imbuido por la norma es la misma que caracteriza al seguimiento ciego o no explícito de reglas que hemos visto anteriormente en el Capítulo 6: no hay un ralentizamiento o un doble proceso (abstracto y después comportamental) de las respuestas que hay que dar al percibir tal o cual cosa porque el seguimiento de reglas de tipo mcdowelliano no implica la realización de operaciones mentales abstractas previas a las respuestas que demanda el entorno.

Por el contrario, un ser normativo que sigue una regla no tiene por qué seguir una regla entendiendo por regla una proposición discursiva, explícita y general. Uno sabe lo que hacer no por seguir una máxima sino porque entiende cómo responder al ver las situaciones concretas de cierta manera distintiva. Esto se ve más claramente en el particularismo moral de McDowell (1979:374), pero también lo extiende el autor al plano perceptivo no moral.

Al darnos cuenta de que McDowell no defiende el intelectualismo del que es acusado por Dreyfus, el ejemplo del experto como argumento contra la imagen mcdowelliana de la percepción y de la acción es ya algo inútil. A Dreyfus solo le queda, por lo tanto, apelar a que hay contenidos perceptivos no accesibles a nuestra racionalidad por medio del *merging argument* para intentar negar la idea mcdowelliana de que somos seres racionales.

Por otros motivos, Montero, que ha sido bailarina profesional, rechaza en su texto (2013: 303-319) la idea del experto que ofrece Dreyfus. Primero analiza el principio de automaticidad (Montero 2013:304) que está a la base de la imagen dreyfusiana como la idea de que para realizar una acción por parte de un experto no es necesario ningún proceso de monitorización. Montero señala que este principio solo tiene en cuenta acciones que son, por así decirlo, *perfectas*, ya que este principio que defiende Dreyfus no permite el error. Y esto es de una importancia capital ya que, como ha sido expuesto previamente, el enfoque de Dreyfus es normativo y no causal, y ello implicaría que si es normativo ha de permitir, por necesidad, la posibilidad de error. Además, siempre que hay un error parece que son nuestras capacidades racionales las que nos hacen volver a encauzar nuestra acción, lo cual subrayaría el peso de lo normativo como rasgo de lo racional. El principio de automaticidad, por el contrario, parece no tener en cuenta estos casos en los que recuperamos nuestro acople con el mundo gracias a un *feedback* racional o discursivo. Por ello, hay que tener en cuenta además que un experto es, entre otras cosas, alguien con la capacidad de distanciarse de su acción con el propósito de mejorarla o de modificarla en función de contextos novedosos. Y parece que la imagen del experto que ofrece Dreyfus está muy lejos de esos aspectos capitales que señalan McDowell y Montero y que difícilmente pueda dar cuenta, por ejemplo, del hecho que alguien como Roger Federer necesite un entrenador como cualquier otro mortal.

9.4 La experiencia y sus contenidos

Como se ha visto, el recurso al experto solo funcionaría como argumento contra la postura mcdowelliana si realmente con ella se abrazase el intelectualismo. Pero nada más lejos de la realidad. Pese a ello, a Dreyfus le queda un último argumento, quizás el más potente: si realmente existen ciertos objetos de la percepción no conceptualmente articulados y, por tanto, que no tienen esa potencialidad de ser contenidos de futuras inferencias, la experiencia no estaría permeada de racionalidad y no seríamos seres plenamente racionales. Sin duda, un argumento satisfactorio a favor de la necesidad de un tipo de contenido no conceptual de la experiencia podría desmontar el edificio de la filosofía mcdowelliana. En la siguiente sección se analizará la estrategia de Dreyfus, mientras que en esta sección se prestará más atención a la manera en que Crane (2013: 229-49) responde a las exigencias de McDowell. Las aportaciones principales de Crane a la noción de contenido de la experiencia comienzan señalando la pluralidad de esta noción (2013:232-3). Crane no parte del debate con Dreyfus, sino del debate que McDowell mantiene con Travis (Crane 2013: 230-2) para debilitar la postura del primero. En este debate (ver Apéndice A), Travis (2013: 118-44) señala que la postura original de McDowell en *Mente y Mundo* (1994), al mantener un conceptualismo proposicionalista, no puede dar cuenta de los casos en los que se produce lo que él denomina “sensibilidad a la ocasión” (*ocassion-sensitivity*)³. Pese a los sentidos *de re* (los cuales, recordemos, relacionan aspectos particulares del mundo con los sujetos), McDowell (1994) mantiene que el contenido de la experiencia perceptiva es proposicional y potencialmente judicativa; y esto, para Travis, supone que es imposible dar cuenta de los casos particulares en los que distintos objetos concretos se presentan de modos distintos. Esto es así porque, si el contenido de la experiencia es *proposicional*, una experiencia de un objeto concreto tendría un contenido del tipo ‘tal cosa es tal y tal’, lo que se correspondería con *un único* estado de cosas en el mundo, forzosamente de carácter general. Por ello, si el contenido de la experiencia es proposicional, ello implicaría que sería representacional. Así, el contenido de la experiencia sería una proposición en la que, de manera general, se representaría *un único estado de cosas* en el mundo. No cabría la posibilidad de tener distintas

³Como se verá posteriormente (Apéndice A y sección 10.2), McDowell modificará esta postura proposicionalista (McDowell 1994) a una postura intuicionista (McDowell 2009) en parte debido a su debate con Travis.

experiencias particulares del mismo objeto, distintos juicios del mismo objeto dependiendo de las circunstancias o de los distintos modos de presentación bajo los que se nos presente ese mismo objeto si mantenemos un proposicionalismo como hacía McDowell en *Mente y Mundo*, ya que el proposicionalismo conlleva la defensa de un carácter judicativo, representacional y general del objeto de la experiencia al ser el contenido de esta una proposición completa⁴. Pero Travis nos advierte de que el mismo objeto se nos puede presentar de modos distintos y que, en ocasiones distintas, lo que sea pertinente decir sobre éste sea distinto. De ahí la sensibilidad a la ocasión: recurriendo a la distinción entre sentido y referencia (o también el lado derecho (racional) y el lado izquierdo (no conceptual) de lo que Travis llama ‘la línea de Frege’⁵) el mismo objeto o referencia puede caer bajo ciertos *rangos distintos* de modos de presentación (sentidos). Ya no se da el caso de que percibimos un objeto ‘*que es tal*’, sino ‘*como siendo tal*’. Esto implica una radical separación entre nuestras habilidades perceptivas y racionales. Para empezar, lo perceptivo es el campo de lo no conceptual. Nosotros *percibiríamos* el objeto como siendo objeto (la referencia, el contenido no conceptual); pero el objeto, para ser *reconocido*, ha de ser alcanzado por nuestras habilidades racionales (que están al lado derecho de la línea, el racional). Con lo cual, es necesario que, dependiendo del contexto, ese mismo objeto instanciase algún estado posible dentro de rangos distintos de modos de presentación (y esa instanciación no sería una actividad perceptiva, sino una actividad racional) si quisiéramos ser conscientes de que estamos percibiendo algo *como* algo.

En conclusión, nuestras habilidades racionales son capaces de salirse de lo conceptual y atrapar lo no conceptual. Así, recuperando a Frege, Travis es capaz de dar cuenta de los casos particulares postulando que percibimos siempre un contenido no conceptual (el objeto), que sería la referencia, el cual para ser reconocido de manera distintiva caería bajo un modo de presentación concreto, lo cual consistiría en un juicio. Así, percibir sería un proceso con contenido no conceptual, mientras que emitir un juicio sería algo puramente racional (la razón alcanzaría lo no conceptual, no solo se limitaría al espacio de las razones, como diría McDowell). Y dado que percibir no es un proceso de naturaleza idéntica a juzgar (a diferencia de la propuesta de McDowell), la experiencia no sería representacional ya que su contenido no sería una proposición, sino un contenido no conceptual. Por lo tanto,

⁴Este problema se analizará en relación con las intuiciones en el Capítulo 10

⁵Esta idea se desarrollará en la sección A.2

McDowell, al obviar la distinción entre sentido y referencia, obvia el aspecto no conceptual de la experiencia y es incapaz de dar cuenta de los casos de sensibilidad a la ocasión o a lo particular.

Tras discutir con Travis, McDowell (2009: 256-72) ha aceptado que el contenido de la experiencia, para que sea antirrepresentacional y dé cuenta de lo particular, no tiene por qué tener forma proposicional. Pero, al contrario que Travis, McDowell afirma que el contenido de la experiencia es conceptual, sobre todo debido a su carácter unitario: partiendo de la idea kantiana señalada anteriormente por la cual la misma función articula la unidad de la experiencia y la unidad del juicio, McDowell pasa a defender que existen dos tipos de contenido. Primero, el contenido de los juicios, que tiene forma proposicional o discursiva y refiere a estados generales. Segundo, el contenido de la experiencia, que es igual de unitario que el juicio, pero no tiene forma proposicional, con lo cual no refiere a lo general, sino a lo particular. A esto lo llama ‘intuición’ o contenido intuicional (ver 10.3), tal y como fue llamado por Kant. Si al contenido intuicional le viene dada su forma unitaria por la misma función que da unidad al contenido proposicional, no es de extrañar que las intuiciones sean conceptuales por su unidad y por su potencialidad de formar parte del contenido de una proposición en un juicio. Una misma intuición, así, podría ser el contenido de distintos juicios, de manera análoga a cómo un contenido no conceptual en Travis podría caer bajo distintos rangos de modos de presentación. Por lo tanto, McDowell, al abandonar el carácter proposicionalista del contenido de la experiencia, podría (aunque no lo ha hecho explícitamente) dar cuenta de los casos de sensibilidad a la ocasión (ya que el mismo contenido intuicional puede formar parte de juicios distintos) y mantener una postura antirrepresentacionalista de la experiencia (ya que las intuiciones son conceptuales pero no judicativas ni proposicionales). Todo ello, sin dejar de defender el conceptualismo que caracteriza a su postura.

Así, la nueva propuesta de McDowell renegaría del intencionalismo estándar (la idea de que el contenido de la experiencia es proposicional). Pero, como señala Crane (2013: 236-7), si llevamos un paso más allá la idea de McDowell, es posible postular que no solo hay un contenido intuicional y uno proposicional, sino varios tipos distintos de contenido (por ejemplo, ‘hay una sustancia delante de mí’, la cual tiene contenido existencial; el tener la sensación de algo, etc.). Esto tiene consecuencias para el intencionalismo: se puede distinguir el contenido intuicional,

el contenido proposicional, pero también nada excluye que podríamos postular un contenido que dé cuenta de lo que es fenomenológicamente dado para un sujeto. Esto implica defender la tesis del pluralismo del contenido perceptivo. Por ello, Crane (2013: 239) se agarra a esta tesis para introducir el concepto de ‘idea’ fregeana que sirva para destacar el aspecto fenoménico del contenido perceptivo que, a su juicio, toda experiencia posee. La idea fregeana es un tipo de contenido de carácter subjetivo, temporal y concreto de la experiencia de cada sujeto. Este se contrapondría con el carácter abstracto y general del contenido proposicional, que es el que usamos cuando describimos nuestra experiencia y cuyo significado es compartido por los demás agentes racionales. Este contenido fenomenológico sería lo único ‘dado’ en la experiencia, mientras que el ‘contenido’ en sentido fuerte habría de ser proposicional. Pero, tal y como señala McDowell y a diferencia de lo que afirma Crane, las intuiciones son también dadas (2009: 263), ya que ese contenido, al no ser proposicional, no tiene forma discursiva y no es por tanto una unión de agregados conceptuales en una proposición. La intuición tiene unidad, pero no es una unidad formada por agregados. Es unitario ya que es, por así decirlo, el elemento más básico de una experiencia. Así, la intuición tendría un carácter conceptual que sí sería parte del contenido de una proposición cuando esta se articule.

A su vez, Crane se distancia de McDowell porque cree que todavía le queda por dar un paso más y reconocer que hay elementos no conceptuales en la experiencia. Esto es así porque, según Crane, “McDowell insiste en que el contenido de una intuición es conceptual, pero esto es consistente con que no todo aspecto del contenido sea conceptualizado, o pensado, o convertido en contenido de un juicio” (Crane 2013:241)⁶. Así, según Crane, si el pluralismo de contenido es cierto, una teoría de la experiencia perceptiva necesita una noción fenomenológica de contenido como la postulada por él mismo, que es idéntica a la noción de ‘idea’ en Frege. El contenido proposicional moldearía, entre otras cosas, el estado fenomenológico concreto que el agente también posee. Las ideas serían recogidas como formando parte de esa proposición general.

Pese a ello, esta idea de experiencia subjetiva fenomenológica puede resultar problemática. Primeramente, surgen problemas debido a su propia naturaleza. Se supone que esta experiencia es tan dependiente de contexto como la de McDowell,

⁶La traducción es propia.

pero es no conceptual. Ello implicaría que esa ‘idea’ es parte de lo que se moldea en una proposición, pero un inconveniente adicional es que no afirma exactamente cómo se moldearía. Y esto es un problema serio. Como señala McDowell, el Mito de lo Dado se basa en la incoherencia de explicar cómo lo causal puede servir como justificación de una creencia de tipo proposicional (o, al menos, conceptual) si bien lo causal no está conceptual ni proposicionalmente articulado. A diferencia de la propuesta de Crane, las intuiciones mcdowellianas están conceptualmente articuladas, y ello posibilita su potencialidad a la hora de formar parte de proposiciones. Así, parece difícil explicar cómo las ideas fregeanas pueden servir como contenido de las proposiciones si ellas no lo están. Mientras Crane no sea capaz de explicar (de manera no mítica) cómo ese contenido no conceptual puede llegar a formar parte del contenido de una proposición, la posición de McDowell seguirá tomando ventaja.

Más aún, y volviendo a las motivaciones de Crane a la hora de introducir el supuesto contenido fenomenológico (ya que según él esa introducción no queda imposibilitada al aceptar McDowell la tesis del pluralismo del contenido perceptivo), el hecho de que nos comprometamos con la tesis del pluralismo de contenido no implica que de ahí se siga necesariamente que existen tipos de contenido o de estados de experiencia fenoménicos, esto es, subjetivos y privados, similares a las ‘ideas’ de Frege. Parece que, simplemente por economía explicativa, es mejor no postular entidades fenomenológicas como las ‘ideas’ fregeanas, ya que parecen no jugar ningún papel determinante (causal, normativo, etc.) a la hora de dar cuenta de nuestra experiencia perceptiva. En cambio, parece que la única función de estas nociones no es más que la de sostener la vieja idea de que debe haber un elemento ‘dado’ que sirva de base para la experiencia y que sea, además de privado, no justificable. Pero precisamente en contra de la necesidad de postular estos tipos de estados nos previene McDowell con análisis del Mito de lo Dado como una incoherencia explicativa. Así pues, parece que la fenomenología y el empirismo (en sus distintas versiones) son más parecidos de lo que Dreyfus señala en un principio ya que comparten al menos la reivindicación de cierto elemento ‘dado’ por la experiencia, privado, subjetivo y, sobre todo, no conceptual.

9.5 ¿Somos *siempre* animales racionales?

Descartándose la apelación a la figura del experto como argumento contra el conceptualismo de McDowell, Dreyfus ha de apelar a la imposibilidad de que el contenido de la experiencia sea racional para desmontar la postura mcdowelliana, y debe hacerlo con mayor éxito que Crane. Schear (2013: 285-303) analiza el argumento dreyfusiano y le da articulación formal para mostrar su potencia. Antes de ello, Schear se pregunta si el hecho de que seamos animales racionales puede entenderse en sentido fuerte (como parece que lo entiende McDowell) o débilmente (como parece que lo entiende Dreyfus). La versión débil afirmaría que hay ciertos procesos cognitivos no racionales, los relativos a la conciencia sensorial, que no tendrían que formar parte de la conciencia racional (Schear 2013: 287). Si se prueba que el argumento de Dreyfus es correcto, la posición mcdowelliana se vería mermada y podríamos afirmar que somos animales racionales, pero siempre entendido en sentido débil. Para ello Schear reconstruye la línea argumentativa de Dreyfus en el debate y la explicita en lo que él mismo ha llamado “el argumento de la unión” (*merging argument*). Los pasos son los siguientes:

1. La racionalidad requiere de determinados objetos
2. La unión con el entorno evita la presencia de estos objetos
3. Desenvolverse absorto en el entorno (*absorbed coping*) es incompatible con la racionalidad
4. Los seres humanos no son racionales en sentido fuerte

La idea principal de Dreyfus y Schear consiste en señalar que, cuando uno se desenvuelve en el entorno de manera absorta o irreflexiva, sus acciones no están disponibles para la racionalidad porque no se mantiene la dicotomía sujeto-objeto. Al no poder identificar un objeto perceptivo (de tipo conceptual) nos es imposible emitir un juicio sobre los contenidos de nuestra percepción, con lo cual sería imposible llevar esa experiencia situada en un momento espacio-temporal concreto a que forme parte de una justificación de una creencia o un comportamiento. El objeto de esa experiencia de desenvolvimiento irreflexivo en el entorno no es un objeto que pueda contribuir a las condiciones de verdad ya que no es proposicional,

conceptual o accesible a la racionalidad. No habría, por tanto, una diferenciación entre el mundo y el agente, y en conclusión se evitaría la dicotomía sujeto-objeto. Esto sería situar la interacción sujeto-objeto en un paso previo a la misma intuición kantiana que defiende McDowell. No hay distancia con el mundo ni monitorización de las acciones por parte del sujeto, y ello implica que no hay presencia de objetos en la percepción del agente. Esto es así porque los procesos a los que se refiere Dreyfus son las *affordances* gibsonianas y las líneas de fuerza merleauPontyanas (Dreyfus 2007b: 356-7), que son normativas pero no conceptuales. Estas *affordances* y líneas de fuerza funcionarían como una red de atracciones y repulsiones que nos invitan a actuar o nos evitan el actuar estando acoplados con el mundo a través de un bucle recursivo y constante extendido espacio-temporalmente.

El agente y el entorno formarían un único sistema dinámico, de carácter normativo, pero no por ello habría que postular la existencia de algún contenido proposicional ni conceptual. Ese sistema sujeto-entorno gozaría de una autonomía propia cuya dinámica especial no podría comprenderse si se analizan ambos elementos (sujeto y entorno) por separado. La identidad de esa red de atracciones y repulsiones no está determinada fuera de la acción del sujeto: la acción del sujeto es insuficiente para explicar su comportamiento si no se apela a los elementos del entorno (ya que toda respuesta del agente se da en un contexto espacio-temporal determinado). Esta relación recursiva implica que el comportamiento del agente en relación con la red es normativo, ya que esos estímulos del entorno que son las atracciones, invitaciones y repulsiones tienen un carácter corporalmente significativo para el agente que responde ante ellas. Pero no tienen contenido de tipo proposicional porque esa repulsión o invitación no conforma objetos en el pensamiento del agente, sino que esas atracciones y repulsiones son meramente las dinámicas que incluyen los elementos del entorno en conjunción con el comportamiento corporal del sujeto y que, a lo sumo, podrían explicarse mediante modelos matemáticos. Así, el sistema agente-entorno funcionando como un todo independiente evita la relación sujeto-objeto según Dreyfus y Schear.

Pero podría afirmarse que la postura Dreyfus-Schear es demasiado restrictiva. Primero, si nos fijamos en los ejemplos de Dreyfus y más concretamente en las *affordances* (no voy a entrar en las líneas de fuerza merleauPontyanas ni en si ambos conceptos son idénticos), parece que se mantiene la dicotomía sujeto-objeto pese a que en psicología ecológica se afirma que tanto el animal como el entorno

forman un único sistema unificado. Antes de entrar en esto hay que afirmar que, como se ha visto en el Capítulo 3, el mismo Gibson (quien acuñó el término ‘affordance’) recalca que existe un mutualismo entre animal y entorno en el que no puede entenderse el uno sin el otro (Gibson 1979: 8). Desde ese punto de vista, las *affordances* solo se comprenden como propiedades del entorno que se relacionan con los agentes. Pero esa dependencia ontológica no es necesariamente incompatible con la existencia de una autonomía epistémica del agente. De hecho, cuando hablamos de *affordances*, todo parece implicar que, para poder ser percibidas, es necesaria tanto esa dependencia ontológica como esta dicotomía epistémica entre sujeto y objeto. De hecho, Gibson (1979: 238-262) y otros psicólogos ecológicos posteriores utilizan la expresión ‘detectar’ o ‘recoger’ información (*pick-up information*) para referirse al momento en que el agente es sensible a la información de alto nivel que explicita la disponibilidad de *affordances* en el entorno (ver sección 3.2). La información se encuentra en el espacio informacional que el agente encuentra en su medio, y mediante su desenvolvimiento activo a través del medio es capaz de detectar la información de alto orden que le permite aprovechar una *affordance* (o sea, que le brinda la oportunidad de realizar una acción). La postura ecológica mantiene una aproximación completamente externista, ya que esa información está en el entorno y se transforma en información ecológicamente significativa debido a la acción del sujeto. Así, la percepción para los ecólogos no consiste en analizar sensaciones internas (ver 3.2.1), sino en detectar información relevante que se sitúa necesariamente en el medio externo (Gibson 1968, 1979). Ello implica, también necesariamente, una distinción epistémica entre sujeto y objeto que posibilite la percepción de estos objetos. Por lo tanto, parece que la dicotomía sujeto-objeto no es incompatible con una posición ecológica, sino que más bien es una condición para la percepción dentro de esta teoría.

Otro asunto está relacionado la capacidad explicativa que ofrece el argumento de la unión. Este argumento explicita una supuesta condición epistémica según la cual el sujeto es incapaz de diferenciarse de su entorno, y por ello le es imposible poder percibir objetos o nada que pueda servir como contenido de un estado perceptivo con contenido conceptual o proposicional (porque un estado perceptivo con contenido ya implicaría la dicotomía sujeto-objeto que este argumento niega). Parece que no queda claro cómo puede surgir ese aspecto normativo que tanto enfatiza Dreyfus (el cual funciona como criterio de demarcación entre la fenomenología y el no-conceptualismo causalista) si el agente no es capaz de individuar una re-

spuesta ante un rasgo concreto del entorno. Parece que el hecho de que exista una red de atracciones y repulsiones conlleva una dimensión normativo-valorativa, y precisamente para ello se necesita de la individuación de ciertos rasgos del entorno a los que el agente tiene que responder de manera especial en función de ciertos criterios de corrección. Por lo tanto, no se entiende cómo pueden existir estas evaluaciones normativas si no existe previamente una dicotomía sujeto-objeto que implique la existencia de un objeto perceptivo (ya sea una situación o un rasgo del entorno) que el agente tiene que valorar.

Así, parece que el segundo argumento en contra de que somos seres racionales en sentido fuerte es insuficiente a la hora de dar cuenta de nuestros estados perceptivos. Parece que una vez que se acepte la dicotomía sujeto-objeto (y, como se ha visto, ni Dreyfus ni Schear tienen motivos para no aceptarla) resulta imposible no aceptar el conceptualismo mcdowelliano sin caer en el Mito de lo Dado, al menos si se restringen las opciones a las dos posturas ofrecidas por los autores que se enfrentan en este debate.

9.6 Conclusión

Aunque el conceptualismo de McDowell resulte ser el claro vencedor en esta contienda, las estocadas que tan certeramente Travis ha llevado a cabo contra el proposicionalismo ofrecido en *Mente y Mundo* (1994) hacen que McDowell se haya batido en retirada y optase por reconfigurar su propuesta inicial (véase 10.2). Como se ha visto, ahora ha cambiado su postura para decir que el contenido intuicional, aunque conceptual, no es idéntico al contenido proposicional o judicativo. Mucho de lo que siempre recriminaron los defensores del contenido no conceptual a McDowell (que el contenido de la experiencia no es judicativo ni posee condiciones de verdad, únicamente condiciones de adecuación), se lo ha logrado imponer Travis recuperando la vieja distinción fregeana entre referencia (lo no conceptual, el objeto como es en sí mismo) y el sentido (lo conceptual, el modo particular de presentarse el objeto, lo judicativo). Así, para Travis, la razón es capaz de alcanzar lo no racional mediante la distinción fregeana (ver A.2). Percibir sería meramente registrar los objetos. La racionalidad, al ofrecer el rango de posibles modos de presentación sobre los que cae el objeto, haría todo el trabajo de categorización,

discriminación e identificación. La experiencia, la percepción, no tendría encomendada esa misión, y no estaría permeada de racionalidad. Los sentidos serían silentes, si utilizamos la expresión de Travis (2013: 23-59). Por el contrario, precisamente por la demarcación de funciones de la línea fregeana, el papel de la experiencia como fuente de conocimiento en la propuesta de Travis es casi inexistente, lo cual choca con nuestras intuiciones más básicas y, también, con las (hasta ahora) satisfactorias explicaciones mcdowellianas de la continuidad entre la experiencia y la razón. Tendríamos que optar, entonces, o por un conceptualismo no proposicionalista basado en unas ideas kantianas todavía poco clarificadas o por una imagen de la racionalidad en la que la percepción y la experiencia no jueguen el tradicional papel justificatorio de nuestro conocimiento. En el Apéndice A se desarrolla una postura favorable al conceptualismo no proposicionalista, llamado también conceptualismo mínimo (ver Capítulo 10), contra los argumentos de Travis.

Otra cosa es que esta crítica de Travis a McDowell afecte a los argumentos principales que el último ha ofrecido para responder a las críticas de Dreyfus. Pero esto no es así. McDowell parece ser el gran triunfador en este debate. Aún así, Dreyfus lleva a cabo una gran tarea (y esto ha sido una constante en su filosofía) a la hora de contrastar las nociones tradicionales de la filosofía de la mente con una ontología más continental que a su vez sirve de base para propuestas actuales en ciencias cognitivas, las cuales suelen reforzarse experimentalmente a través de modelos matemáticos sólidamente articulados. Aunque los argumentos principales de Dreyfus no hayan sido suficientes para debilitar la postura mcdowelliana, ver a estos dos filósofos discutir sobre las nociones de experiencia, experticia y racionalidad trayendo a filósofos como Heidegger, Gadamer y Aristóteles a colación una y otra vez, hace que al lector del debate le llegue a importar más su desarrollo que la necesidad de llegar a una conclusión definitiva.

Como ya se comentó al comienzo de este capítulo (página 181), el debate Dreyfus-McDowell es un debate atípico ya que ambos filósofos parten de presupuestos similares para posteriormente llegar a posiciones prácticamente enfrentadas. Pese a ello, y como también se ha podido observar, es difícil que ambas posturas por sí solas articulen una respuesta completa que deje satisfechos a todas las personas que, desde sus respectivas aproximaciones al fenómeno de la cognición, acudan a estos autores en busca de la explicación definitiva de lo que son nuestra experiencia, nuestra racionalidad y la conexión entre ambas.

En el siguiente capítulo se analizará, partiendo de una perspectiva mcdowelliana, cuál es el contenido de nuestra experiencia resultante de percibir *affordances*.

Chapter 10

Is the content of our experience of affordances representational?

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10.1 Introduction: representationalism and the content view

In the last chapter (see especially sections 9.1 and 9.5) I have seen how, in order to offer a consistent connection between our experiences of perceiving affordances and the rest of our rational abilities, it would be better to support a conceptualist approach to perceptual content rather than a phenomenologically inspired approach. However, this could be a threat at the eyes of ecological psychologists. This chap-

ter¹ aims to show that we can reconcile conceptualism (in a minimal form) with ecological psychology.

Claiming that the content of the cognitive states that result from the perception of affordances is conceptual could be understood as a commitment to the content view. The content view is the thesis that the content of experience is a proposition that represents the world (Brewer 2006). This would imply that the conceptual content that results from our perception of affordances is a proposition that represents a particular states of affairs, and this goes against the general anti-representational commitments hold by ecologically-inspired psychologists and philosophers (Gibson 1979, Richardson et al. 2008, Chemero 2009, etc. See also 3.1). Here, I want to show that a commitment with conceptualism does not necessarily entails a commitment with propositionalism and representationalism. This is key for the reconciliation between conceptualism and ecological psychology.

Conceptualism could be considered as an enemy of ecological psychology inasmuch as it has been traditionally understood as defending representationalism. Concepts has been understood as abstract and general elements that mediate between our thoughts and the world, which would preclude us to get in direct touch with it. Also, representations, be them neural, mental or semantic, were not useful for explaining how we experience affordances inasmuch as they were internal, abstract or both at the same time. The level at which representations have been traditionally located was a sub-personal one, and it had nothing to do with the personal level at which we find the ecological scale. Within the ecological approach, there is no need to postulate the existence of representations in order to offer a sufficient explanation of how perception works at the personal level. Also, as we have seen in 3.2.9, Gibson claimed that the best way to understand sub-personal processes was not with representations, but with a process called ‘resonance’ (Michaels and Carello 1981: 63-5), which is the inner nervous affections that happen to our nervous systems when we perceive and/or take advantage of affordances (Freeman 2001). This ‘resonance’ is something that inspires Freeman’s (2001) approach to neuroscience from an antirepresentational point of view. Here, the process of resonance is analyzed from a neurodynamical perspective, and no representations are involved.

¹I am thankful to Juan José Acero, David Bordonaba, Tom Breeds, Jose Luis Liñán, Nemesio García-Carril, Charles Travis and Neftalí Villanueva for fruitful discussions.

This part of my dissertation aims to offer a picture called minimal conceptualism, in which a commitment with conceptualism is not incompatible with an anti-representationalist approach to the mental. For this, I will show how the way in which McDowell (2009) understands the notion of ‘intuition’ is suitable with an anti-representationalist view on mental content. At the same time, this notion of intuition would help us to keep a consistent connection between the content of our perceptual experience and our rational abilities, as it has been shown in Chapter 9. This is quite helpful for understanding how we experience affordances and how we can engage our experience of perceiving affordances with the rest of our mental, rational abilities.

In the following sections, I will explain McDowell’s view on experience and how he develops his notion of intuition, then I will apply this notion of intuition to our experience of perceiving affordances and, finally, I will try to sketch some similarities between this late version of McDowell’s minimal empiricism (see 9.1 and the next section) and James’ radical empiricism (described in 3.3.1).

10.2 McDowell on the content of experience

As we have seen in the last chapter (see especially 9.1), McDowell (1994/1996, 2009) claims that the content of experience is conceptual. He develops this view in order to avoid the oscillation between epistemic coherentism (by which only a belief can justify a belief) and epistemic foundationalism (the idea that experience can play the role of a foundation for knowledge)². The problem of foundationalism is that it has been traditionally understood as if some factual or non-conceptually articulated worldly object were able to be a foundation for the rest of our corpus of knowledge (and hence be able to justify it), which is something known as the Myth of the Given (Sellars 1956). Givenness or the Myth of the Given, the idea of a non-conceptually articulated worldly object working as a foundation for knowledge, is mythical because what is not conceptually articulated cannot be part of a proposition, hence it cannot establish logical or inferential relations with something propositionally structured, and this avoids the supposed justificatory role that all foundations are said to have because of matters of explanatorily consis-

² Throughout this chapter I follow closely McDowell’s way of characterizing the dialectics between coherentism, foundationalism and conceptualism.

tency: only a proposition can establish inferential (hence justificatory) relations with other proposition(s). Nothing that is not conceptually articulated can establish those kinds of relations that are exclusive of conceptually articulated items (see A.3.5 in the Appendix for a further analysis on Givenness). This rejection of foundationalism as mythical usually leads to coherentism (Davidson 1983), the idea that only a belief can justify another belief. The consequence of this move is that experience plays no justificatory role at all and is reduced to a mere causal condition for knowledge.

McDowell rejects this oscillation between coherentism and foundationalism: he agrees with Sellars in rejecting Givenness as a myth, but at the same time he does not want to sacrifice the idea that experience can play a justificatory role for knowledge. In order to find a third way, he rescues the justificatory role of experience by claiming that the content of an experience is not Given, but a conceptually articulated proposition. This is how he avoids both the consequences of foundationalism (the Myth of the Given) and those of coherentism (the idea of a mental life is not rationally constrained by experience, leaving our mental contents in a sort of inferential game detached from our contact with the world). In conclusion, the only plausible consequence to avoid the oscillation between foundationalism and coherentism is claiming that the contents of experience should be conceptual in order to recover a justificatory role for experience without Givenness.

In his view, experience actualizes rational abilities simply because, in order to avoid Givenness, every experiential state would possess the potentiality to be somehow included in our inferential reasoning. Perception should possess a potential conceptual content inasmuch as perceptual states can be part of future inferences in the game of giving and asking for reasons. The key point is that persons are able to justify their beliefs when asked to do so. In a case when someone makes a particular appeal for another agent to justify her beliefs, what is important at the end is not the answer itself (the particular reason). The really important thing is the ability or the capacity for answering the question (McDowell 2007a, 2007b, see Chapter 9 and section 6.2.3). A non-rational agent is not able to justify her beliefs; and this capacity for justification, this ability, is the main difference between rational and non-rational animals. Both rational and non-rational animals can respond to the stimuli of their environments, but only the rational ones are able justify their beliefs.

This is tightly related to the idea of the unboundedness of the conceptual (McDowell 1994 / 1996: 24 - 46). If one is able to be in a perceptual state that can be part of an inferential chain, this means, as it has been said, that those states possess certain potentiality. And that potentiality is what makes them to be conceptually articulated; this is, the potentiality to be used as content in a future inference reveals its conceptual structure. In a certain sense, no experience can avoid possessing that potentiality of being conceptually structured. Rationality permeates experience because we can use experiences as contents in future judgments or inferences. Thus, the conceptual extends to all aspects of human cognition, and this is what makes us rational.

McDowell's approach is divided in two stages (McDowell 1994/1996, McDowell 2009), although the difference between both is minimal. In his first stage, McDowell (1994) presents the idea that the content of our experiential states is propositional. As he puts it (McDowell 1994/1996: 26):

In a particular experience in which one is not misled, what one takes in is *that things are thus and so*. *That things are thus and so* is the content of the experience, and it can also be the content of a judgement: it becomes the content of a judgement if the subject decides to take the experience at face value. So it is conceptual content. But *that things are thus and so* is also, if one is not misled, an aspect of the layout of the world: it is how things are. Thus the idea of conceptually structured operations of receptivity puts us in a position to speak of experience as openness to the layout of reality. Experience enables the layout of reality itself to exert a rational influence on what a subject thinks.

In this passage we can understand how his view combines the idea of perceiving particulars with the idea of the unboundedness of the conceptual: our way to get in touch with particulars is just through conceptual articulation; this is, rationality is the way we get to deal with them. When perceiving particulars, we are able to do so because we are able to capture how things are in the world, and how things are in the world is something that can be expressed in a proposition. It is because of our rational abilities that when the world impinges causally on us, inasmuch as we can capture that impingement conceptually, we are opened to the world. The

idea of the unboundedness of the conceptual, far from detaching us from the world, is the way in which we are able to get in touch with it.

Recently, in his second stage of thought regarding the content of experience, McDowell abandoned the idea that the content of our experiences (the content of the experience of having something in view, for example) is propositional. There is no need to commit ourselves to the idea that things are thus and so when we merely have something in view. He claims that in most situations we merely have things in view, and in those situations the content of our experience of those particulars does not need to involve that those particulars are understood through general ways of being or that things are in a certain way, which is to say that we can simply have those particulars in view in a way in which the content of our experience is not propositionally structured. But, even if it is not propositionally structured, it still is conceptually articulated. But how can this be possible?

In order to show this, and as we saw in 9.2 and 9.4, he rescued the Kantian idea of ‘intuitions’ (Kant 1789/1924: A79/B104-5), claiming that even when the content of experience is conceptual, it does not need to be propositionally structured, because a fully-fledged proposition (that things are such and such) would be too demanding for a simple experience as of having something in view. Intuitions are the given unifications of different presentations of particulars to us (McDowell 2009: 263). Thus, intuitions play the role of relating us rationally with particular objects of the world. They are the product of an actualization of our conceptual capacities in experience. But this actualization is not of general, abstract concepts in which particulars are subsumed, as in the case of demonstrative beliefs. This is because ‘conceptual’ does not mean ‘linguistic’, ‘predicative’ or ‘discursive’ (Evans 1982, McDowell 1994: 105-7, McDowell 2009: 262-4) (see section 6.2.3 on page 129).

Intuitions are not discursive or linguistically articulated because “there are typically aspects of the content of an intuition that the subject has no means of making discursively explicit. Visual intuitions typically present one with visible characteristics of objects that one is not equipped to attribute to the objects by making appropriate predictions in claims or judgments” (McDowell 2009: 263). Although non-linguistic, intuitions are still conceptually structured inasmuch as “every aspect of the content of an intuition is present in a form in which it is already suitable to be the content associated with a discursive capacity” (McDowell 2009: 264). We can bring some aspects of the intuitional content to language, but only because this

experiential content comes in a conceptual form that allows us to do so. For this, McDowell (2009: 263-4) claims that “one needs to carve out that content from the intuition’s unarticulated content before one can put it together with other bits of content in discursive activity”. We can include intuitional content (or some parts of it) in discursive activity, and this means that we exploit a potential that is already present in intuitions. The aspects of intuitions that we do not exploit in our discourse are easily forgotten (McDowell 2009: 265). McDowell (2009) included intuitions as the content of our perceptual, experiential states because not all experiential states should have a propositional content: we do not need to make a judgment about the world or to commit ourselves to the existence of a state of affairs every time that we have something in view. The experience of particulars, of having something in view, implies that we get in touch with particular objects in the world through our conceptual capacities, but not through general concepts. So the content of our experiential states in those cases need not be propositionally structured. Intuitions are the concepts that are the content of the experiential states we possess when we have something in view, the way in which our understanding (our conceptual, rational abilities) unifies the presentations of that particular into an awareness of the object, and the existence and individuation of intuitions depends on those particulars. No trace of generality is involved this time in our experience of particulars.

In conclusion, intuitions are a special case of concepts: inasmuch as they have a conceptual character, they refer to a specific particular but they do not possess any trace of generality. This is so because they are the unification of the different presentations of a particular to us. Intuitions, then, would be concepts individuated in relation to the existence and identity of some specific particulars. The content of a perceptual state of having something in view is intuitional, and hence conceptual but not propositional.

10.3 Intuitions as conceptual (but not representational) content for perceiving affordances

In Chapter 9 and section 6.2.3 I offered a view in which I find no inconsistency in defending that the experiential states we possess when perceiving affordances are

conceptually contentful. As we have seen, if we want to avoid both the myth of the Given and the myth of the mind as detached, a conceptualism regarding experience is the best option. Here I want to show that conceptualism, considered as the idea that our perceptual states includes a proposition, should not be defended. There is no need to commit to the idea that the content of a perceptual state is a whole proposition when we merely have something in view, as seen in the previous section. If propositionalism as a candidate is rejected because this would increase the risk of defending representationalism, intuitions are the best option because they are also conceptual but not propositional. Intuitions would satisfy the minimum requirements for avoiding Givenness and the myth of the mind as detached because they are conceptual, but they are far from being considered as representations because they are not propositions or do not need to be included in a proposition to be the content of our perceptual states. For this reason, a minimal conceptualism (the idea that the content of our experience is intuitional, hence conceptual, but not representational or propositional) regarding perceptual experience is the best option in order to make sense of which is the content of our perceptual states when we perceive affordances.

10.3.1 Avoiding generality, representationalism and truth-conditions

Intuitions (McDowell 2009) are the main concept in order to avoid Givenness without adopting a representational approach to content. Intuitions are supposed to be concepts, and for most authors concepts are supposed to be general. Concepts like ‘car’ or ‘tree’ possess a generality feature that is shared by all cars and trees. According to a general Fregean view, you take the world depending on the concepts you possess (Toribio 2007: 445). And if you possess the concept ‘car’, you can subsume your experience of a *particular* car under this *general* concept. Thus, the generality that is typical of concepts is the first problem that any minimal conceptualist approach must solve.

The solution is to reject generality. Intuitions, like demonstratives, are concepts that do not possess this feature. If this were true, we would perceive particulars through concepts that do not involve generality. But it is widely accepted that conceptuality involves generality: concepts are general, such as it happens with

‘red’, ‘tree’ or ‘tool’: they are general in the sense that we can describe different particular situations with the same concept, because the concept highlights a general abstract feature shared by all those situations, not the particular features of each object in the situation.

As I mentioned in Chapter 9, one of McDowell’s (1984,1994) great achievements was to show that there are concepts, the so-called *de re* or demonstrative concepts, which do not need to be understood as being general. The existence and identity of a *de re* sense depends on the existence and identity of its particular object, and it is often expressed with a demonstrative term (‘this’, for example). Hence they can also be known as ‘demonstrative’ senses. These senses can be present as a part of a proposition, which is the content of a specific belief about a particular object. These *de re* beliefs must be understood in contrast with *de dicto* beliefs, which are beliefs fully characterizable in general terms. The main feature of a demonstrative belief is that no general description can capture accurately the particularity of the objects or properties the belief is about; in this vein, *de re* beliefs are individuated in terms of particulars, not in relation to general descriptions. One can individuate and discriminate an aspect of the environment using a demonstrative (like ‘this’ when applied to ‘this red’, for example) and then the identity of the concept depends on the existence of a specific object (understood in the broadest sense) of the world. Thus, one can express a thought by using general concepts or by using demonstrative concepts. The difference is that with the former the agent subsumes particulars under general concepts, while with the latter an agent possesses a concept whose identity depends on the existence of a specific particular (or, in some cases, on a feature of a specific particular) and it is expressed by a demonstrative (‘this’, ‘that’, etc.) (for a more detailed analysis on demonstrative senses, see A.3.3).

Intuitions, the new concept developed by McDowell (2009), share this lack of generality with demonstrative senses, although they do not need to be part of a proposition to be possessed by an agent. McDowell’s intellectual development is divided in two stages precisely by the introduction of this new concept. One of the main features of McDowell’s (2009) second stage of thinking, as seen in 10.2, is that we do not need to commit ourselves with a propositional, general content that represents a particular state of affairs when we claim that we have something in view. This means that, when we have some particular in view, the content of

our experiential state at that moment does not need to be propositionally structured. For example, if we are walking down the street, our experiential state of perceiving particular objects do not necessarily need to include an existential commitment with a general state of affairs. If I just go walking down the street and I have certain particulars in view, my experiential states include intuitions, which are the unification of the different presentations of those particulars (and not others). Given their conceptual articulation, they can be used as concepts in general propositions.

For example, if someone asks me “what did you see walking down the street?” I could answer things like “I saw shops, traffic lights, cars, etc.”, but that does not mean that I possessed that specific propositional content in mind –or even that I applied general concepts like ‘cars’– when I was walking down the street. I just had different intuitions, the normative unifications of the different contents of my experience whose existences depend on the particular impingements of those particulars on us. As seen in 10.2, these intuitions do not need to be discursive, yet they are conceptual (which makes them already suitable to be included as an element of the propositional content of a discursive practice). And these intuitions do not need to represent anything, in the sense that they do not stand for states of affairs, or in the sense that they are committed to aspects related to what Travis calls ‘the Tractarian view’³ (Travis 2007). So the experience of having something in view amounts to have an intuition of that something that one has in view. It is not a representation, but merely a unification of presentations of some particular objects to us.

Thus, intuitional concepts would be even more effective than *de re* beliefs, because while demonstrative beliefs would satisfy certain minimal degree of generality inasmuch as they have a proposition as a content (see 10.3), intuitions would not

³The Tractarian view is the idea, enounced by Travis (2007: 228), that “[a] representation-as-so, the idea is, has one particular structure. The elements of such a structure are some definite battery of concepts, or atomic representational devices (names). The structure deploys each in a particular logical role within the whole it forms. Within the structure each element bears a particular structural relation to the others. It is essential to the thought, or representation, to be precisely so structured. For its structure determines what it represents as so: that the elements its elements represent are structured in precisely the way its elements are in it. A different structure would thus represent a different thing as so. In which case what a representation represents as so must share its structure. That it takes just that structure to represent just that as so just is a sense in which what would thus be so has that structure. So to be aware, in experience, of things being so is, ipso facto, to be aware of conceptually structured things”.

commit to this minimal degree of generality because, even if they are conceptual, they do not need to be included as an element of a proposition to be the proper content of an experiential state. Intuitions do not possess demonstrative beliefs' weakness, because they are not propositionally structured, hence there is no risk for intuitions to be general concepts.

Intuitions, then, avoid representationalism because they are not propositional. And in their being non-propositional, they do not possess truth-values and they do not need to satisfy specific accuracy conditions either. The reason for both is basically the same. Usually, these two aspects are related to propositions. But they cannot possess truth-values or accuracy conditions inasmuch as the structure of the content does not share a univocal correspondence to the structure of a particular state of affairs. The experience of certain particular does not share a structural pattern with a state of affairs, because one just has in view a particular without the necessity to accept the existence of a state of affairs in which the particular is located. Propositions are the only ones that can be true or false, accurate or inaccurate inasmuch as they represent a state of affairs. And the terms 'represent' or 'stand for' mean to share a univocal specific structure, which amounts to what Travis called 'the Tractarian view'. Intuitions *per se* cannot be accurate or inaccurate, true or false because they do not stand for a state. And as such, they do not share an item-by-item correspondence relation with worldly items. They just cannot possess it because the intuition does not stand for a state of affairs, but it is merely the normative unifications of a particular's impingements to us⁴.

But what if an intuition represents just that particular that impinges on us? I believe there is no correspondence or representation either. The correspondence theory of truth holds that truth involves correspondence to a fact (David 2002/2015). Traditionally, this means that the content of a belief (this is, a proposition) is constituted by different building-blocks or atomic representational devices, and they are combined in such a way that the resulting proposition corresponds 1:1 with the elements of the world they stand for or represent: the proposition and the fact it represents are structured in the same way. Thus, the content of a complete thought would be a proposition that represents a complete state of affairs. This is the way in which a proposition obtains its truth-value by correspondence; it is a

⁴As McDowell (1994/1996: 9-10) claimed: "the conceptual contents that are most basic in this sense are already possessed by impressions themselves, impingements by the world on our sensibility"

special relation between a proposition and a portion of the world, a relation based on their shared structure.

But this relation of correspondence does not shape the structure of intuitions. The reason why the normative unification of the presentations of objects to us in an intuitional content does not satisfy the requirements to hold a correspondentist view on truth is that the content of an agent's experience when she has something in view *is not a complete proposition*. If it is not a complete proposition, this means that the intuitional content is not structured in a way that could represent that 'things are thus and so' or 'this is such and such', because these are the traditional ways to understand the shape of a proposition. This shared structure is what leads to connect the structure of a proposition with the structure of a fact of the world, establishing their truth-value. Hence, if an intuition is not a complete proposition, there cannot be correspondence, because this is established between propositions and facts, not between intuitions and particulars. Furthermore, this intuitional content would not be representational, because intuitions are not representations, but unified presentations of particulars to us. Thus, there would be no criterion of correspondence between the intuitional content and the particular, as we have seen before.

What unifies intuitions, then? The logical or conceptual relations provide the normative unification that some elements establish in relation to others. This idea has a Kantian inspiration. According to Brandom (2009), that criterion for demarcating the mental from the non-mental is the normative aspect of our thought, as Kant was the first to argue. That unification provides a shape for the presentations based on the normative and conceptual relations that they altogether are able to develop: the identity and existence of the intuition is dependent of the worldly particular in question, but the conceptual shape is given not by a correspondence with the worldly item but by the conceptual relations it can establish with our general body of knowledge.

10.3.2 Conclusion

The antirepresentational spirit of intuitions is similar to the one of ecological psychology. As we have seen in 3.1, affordances are not related to representations

whatsoever. They are opportunities for action that are external to the agent, and the agent does not need to represent them in order to perceive them. Some authors could claim that affordances are not incompatible with representations; this is, we can perceive some affordance external to us and then have certain representation in mind that would allow us to process certain information at a sub-personal level. Certainly, the direct perception of affordances goes against the necessity of postulating a cognitive explanation that implies some kind of algorithmic system for processing representations, such as most cognitivist and intellectualist philosophers do. The ecological approach, as I have presented it, reacted against cognitivism⁵, because the original notion of representation (a decoupled, discrete, statical and symbolic one) was not useful and parsimonious enough for explaining our online behavior. Ecological psychology faced it by postulating a new approach in which there was no need to rely on those representations in order to explain flexible behaviour (see Chapter 3, especially sections 3.1 and 3.2). In fact, there was no need to appeal to anything internal in order to explain at a personal level how the detection of relevant ecological information could explain the adjustment of the behaviour of the agents that perceive it. On the other side, certain notion of content, a representational one, was linked to cognitivism. But, as we have seen in this chapter, not all notions of content must necessarily be representational. In this sense, the notion of ‘content’ would be useful in order to connect our experiential states with the rest of our cognitive capacities (see Chapter 9 and section 6.2.3). We have seen how intuitions keep all the advantages of supporting a conceptualist view (they avoid Givenness and the myth of the mind as detached), but they also avoid the disadvantages (representationalism, etc.).

When the agent has an affordance in view, the experiential state that the agent possesses includes an intuition as content. It is then conceptual, but not representational. In this sense, perceiving the walkability of a situation or the graspability of an object is something that we perceive directly; and we are able to possess an intuitional content in our experience because we can take our experience of perceiving affordances at face value and make that experience suitable to connect with our rational abilities. That intuitional content possibilitates the connection between our experience and our rationality defended in Chapter 9. The idea of

⁵As we have seen in Chapter 3, cognitivism is a theoretical framework that aims to explain cognition as purely symbolic processing. In this sense, cognitivism implies representationalism and intellectualism. On the contrary, not all representationalist authors support cognitivism (see, for example, Bickhard 2008).

intuitional content combined with an ecological approach to perception maintains the antirepresentational spirit of the ecological approach to perception while preserving at the same time the connection between experience and reason, avoiding all sorts of mythical stories.

10.4 Appendix to Chapter 10. Radical and Minimal Empiricism: are they compatible?

McDowell's notion of intuition, as we have seen, can be traced back to Kant. I have the suspicion that this could somehow affect this conceptualist approach, inasmuch as Kant is considered as a non-conceptualist author. This is why it would be interesting to find another candidate whose philosophy would be less risky than Kant's in order to provide a historical background for McDowell's notion of intuition.

I think that an interesting line of research would consist in checking if there are common points among radical and minimal empiricism; this is, between James' (see 3.3.1) and McDowell's (see 10.2) approaches. My proposal is that there are certain similarities that could make us think that both projects are somehow complementary, so not all antecedents of McDowell's intuitions are restricted to Kant. With this I do not want to offer an argument that equates or identifies radical with minimal empiricism. I merely want to point in a direction of future research in which both approaches could be related and could mutually benefit from each other's achievements.

In particular, I think that the notion of 'percept' and the notion of 'intuition' can be understood as sharing certain features that would make us understand that intuitions are a contemporary actualization, at certain respects, of the Jamesian project for explaining perceptual experience through percepts. James claims that percepts are "singulars that change incessantly and never return exactly as they were before" (James 1912/ 1976: 253). McDowell claims something similar about intuitions, the content that is the product of having something in view: intuitions are the unification of the impingements of particulars or singulars that are "out there", perceived online, and changing through time. So this incessant change

would be a similar aspect. As McDowell (unpublished, p.4) claims: “[A]n intuition of an object unifies presentations of some ways the object is into an awareness of the object.” And these presentations change as we approximate in different ways to those objects.

The main common feature of both accounts is their similar emphasis on the idea that there are objects of perception that are online, that one is able to perceive them in a special way, but also (and more important) *the idea that there is certain interdependency between the content of our perceptual experience and our abstract, general concepts*. We have seen how, for James, “[n]o one ever had a simple sensation by itself” (James 1890/1981: 219) because “what we call simple sensations are results of discriminative attention, pushed often to a very high degree” (Ibid.) This is quite similar to McDowell’s idea that conceptual capacities are in action when we perceive. According to McDowell, our rational abilities permeate perception (as we have seen in section 9.1 and 6.2.3). This is quite similar to this Jamesian idea. In fact, James himself claimed that “[concepts] return and merge themselves again in the particulars of our present and future perception” (James 1911: 1979: 34). According to James too, our conceptual abilities are present in our perceptual experience.

But, how can these experiential contents be related to our rationality? James’ times are prior to the post-positivistic approach of the second half of the XX century (see 6.2.4). Thus, James did not inherit neither the developments of the linguistic turn nor the contemporary rejection of Givenness. Then, it is plausible to think that he was not worried about how relating experience and reason in a consistent, anti-mythical way. But we can read James nowadays and actualize his ideas by relating them to Sellars’ and McDowell’s. I think that we can find something very similar to McDowell’s minimal empiricism account if we do this.

There should be a way to relate the content of our experiential states to our rationality. When Heft presents the Jamesian explanation of how to do so, he claims that percepts are “*carved out* of immediate perceptual experience at a remove from action and are abstracted from it” (Heft 2001: 40, italics added). I think that it is more than a mere semantic coincidence that McDowell claims that “one needs to *carve out* that content from the intuition’s unarticulated content before one can put it together with other bits of content in discursive activity” (McDowell 2009: 263-4, italics added). Both percepts and intuitions are of elements of the

environment that are given to us; but, in order to relate them to our abstract, discursive rationality, one needs to carve that experience out in order to relate it to abstract content. I think that the same kind of explanation, *grosso modo*, is offered by both accounts. In this case, the main advantage of relating them is that James' ideas can benefit of being understood under the McDowellian approach, because now we can understand how this process of "carving out" can be defined nowadays, taking into account a background that inherits the achievements of Sellarsian and post-Sellarsian epistemology.

Another aspect to be emphasized in both approaches is the function of demonstratives. James and McDowell used them in the same way when related to perceptual experience. The use of demonstrative concepts imply, as we saw in the last section, that one does not need to possess a general concept and apply it to particulars; rather, the perception of particulars imply a conceptual content that is dependent on the existence of the particulars perceived by the agent. This works in the same way with intuitions. As McDowell puts it, it is possible to carve out this intuitional content in order to combine it with the rest of our general concepts and propositions. We can point to particulars and refer to them using demonstratives, and the intuitional content that we acquire when we perceive particulars is suitable to be combined with the rest of our rational abilities. This is clear in McDowell (unpublished, p. 4): "In presenting an object as being those ways, the intuition puts its subject in a position to make knowledgeable judgments in which she would bring the object under concepts of being those ways. Those judgements would do no more than articulate, perhaps with a loss of specificity, content that is already there in the intuition".

Thus, we can articulate the content of an intuition using a demonstrative. The idea of the continuity between perceptual content and the content of our beliefs has a Sellarsian inspiration: "Sellars gives a helpful illustration: the propositional unity in a judgment expressible by "This is a cube" corresponds to an intuitional unity expressible by "this cube". The demonstrative phrase might partly capture the content of an intuition in which one is visually presented with a cube" (McDowell 2009: 260). James makes a similar use of demonstratives when claims that "[concepts] return and merge themselves again in the particulars of our present and future perception. By those *whats* we apperceive all our *thises*. Percepts and concepts interpenetrate and melt together, impregnate and fertilize each other"

(James 1911/1979: 34). One can capture particulars with demonstratives (even if it is “this” instead of “this cube”), and demonstratives (the ‘thises’) can be combined with general, abstract concepts (the ‘whats’). But there is something deeper in this shared sketch of the continuity and combination of rationality and perceptual experience: for both James and McDowell, it seems that by possessing general concepts we are able to individuate particular, intuitional concepts. Our rational abilities for creating general concepts are what allow us for the development of these demonstrative senses and intuitional concepts.

Hence, for both of them, our rationality would permeate perception. This idea is clear in McDowell (unpublished, p. 2): “In a visual intuition of an object, the understanding — the faculty of concepts — unifies visual presentations of visually sensible ways the object is into an awareness of the object in which it is presented as being those ways.” This is the newest formulation of the old McDowellian *motto*. It would be similar for James, inasmuch as when he claims that “[b]y those *whats* we apperceive all our *thises*” he claims that our experiential content is expressed *via* demonstratives because our capacity for demonstrative thinking is dependent on our conceptual abilities, on our understanding.

Another aspect that is worth underlying as a possible common point between James’ and McDowell’s approaches is that both reject the British empiricism-inspired idea of representational content as a mental mediation, which usually comes with a correspondence theory of truth. James claimed that “[t]he paper is in the mind and the mind is around the paper are only two names that are given later to one experience (...) *To know immediately (...) is for mental content and object to be identical*” (James 1895/1920: 378-9). McDowell also claimed not only that there is a certain identity of meaning between a particular and an utterance (McDowell 1994/1996: 170), but also that identity of the concept depends on the existence of a specific object. See for example the following: “Given the identity between what one thinks and (...) what is the case (...)” (McDowell 1994/1996: 179)⁶.

I think that the significant similarities between James and McDowell that I’ve identified here are sufficient for pointing to the possibility of understanding James’

⁶Even when this quotation comes from McDowell’s first stage in which the content of our perceptual experience is a full proposition, there is no reason for us to think that this same idea cannot be applied to intuitions in his second stage (see 10.2).

radical empiricism as an antecedent of some aspects of McDowell's minimal empiricism. In the same vein, we can take some aspects and achievements of McDowell's minimal empiricism as a tool for actualizing James' radical empiricism.

Chapter 11

Conclusion

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11.1 Main conclusion

The main aim of this dissertation was to offer a conceptual analysis of some epistemological and ontological features of affordances, the objects of perception for ecological psychology. The main idea that has been defended is that the best way to understand affordances is as dispositions from an anti-factualist, Rylean perspective (see Chapter 5). We can relate our taking advantage of affordances to normativity, understood in an anti-factualist way too, if we include those actions within a rule-following practice as a reference (a detailed discussion was provided in Chapter 8). Also, as I tried to show in Chapter 10, this goes in line with defending that a minimal conceptualist approach to perceptual content is the most suitable way to explain how we experience affordances while avoiding Givenness, the myth of the mind as detached, and representationalism.

The three aspects (dispositionalism, normativity and content) have been analyzed from an anti-factualist and anti-descriptivist perspective (see Chapter 2). This means that the main conclusions emerged as a reaction to other factualist and descriptivist approaches that aimed to explain the same aspects from another

perspective. The main arguments that favour the view offered here over the other candidates are the following:

- *Dispositionalism*: Factualist dispositionalism can be divided into anti-realist and realist dispositionalism. Anti-realist dispositionalism, which makes commitment to the existence of a property depending on its manifesting, cannot accommodate cases in which it is intuitive to claim that a bearer possesses a disposition without manifesting it. Thus, realist dispositionalism is the best account within factualist dispositionalism (4.2). How to characterize dispositions as properties from a realist approach? Following Tugby (2013), if we want to guarantee that the two platitudes (the intrinsicness one and the central one) that define dispositions are satisfied, the most suitable candidate is Platonism (4.3.3). The problem with Platonism is that it forces us to postulate a transcendent realm with transcendent universals. This is not compatible with ontological naturalism. For this reason, Ryle's anti-factualist approach to dispositions (see 4.4) keeps all the explanatory power of dispositionalism (it satisfies the central platitude while accommodates the intuitions of intrinsicness and extrinsicness, remaining neutral with respect to the acceptance of both theses) postulating no property at all (and, *a fortiori*, no transcendent one), which is compatible with ontological naturalism. In conclusion, anti-factualist dispositionalism is the best way to understand dispositions (see 4.5). And this makes this framework the most suitable for characterizing affordances (see Chapter 5).
- *Normativity*: factualist approaches to normativity (enactivism, phenomenology, Chemero's notion of affordances as normative relations) are unable to face the Wittgensteinian arguments against the possibility of a private non-following behaviour, because they claim that non-social agents are able to follow their own established norms (see Chapters 6, 7, and 8). If this were true, this would lead us to paradoxical consequences (see the Wittgensteinian argument on page 136): the same action could be either right or wrong depending on how the agent interprets the norm, thus 'right' and 'wrong' would be meaningless. Thus, the anti-factualist approach to normativity depicted in this dissertation can overcome this problem and can offer a suitable way to connect normativity with our taking advantage of affordances if we analyze those actions within a normative framework as a background reference

(see 8.4).

- *Perceptual content*: While descriptivist approaches to perceptual content like Dreyfus' phenomenological approach lead us to mythical stories about the connection between experience and rationality (see 6.2.3 and 9.1), minimal conceptualism, based on McDowell's (2009) notion of intuition, can offer a consistent view of how we relate our experience to rationality (see Chapter 10): if our experience is permeated by rationality, then we can conceptualize what we have in view. This conceptual shape allows us to include this piece of experience in further inferences, and hence we can justify our unreflective behaviour of experiencing and seizing affordances (as seen in section 10.3.1 on page 214). This avoids Givenness and the myth of the mind as detached. Also, this is not representational, because it does not have a propositional form. Hence, minimal conceptualism retains the main advantages of anti-representationalism and the main advantages of propositional conceptualism, without its flaws.

In conclusion, if this research is on the right track, I believe that the most suitable way is to understand affordances as anti-factualist dispositions, because this approach to dispositions is the most economic and easy to reconcile with ontological naturalism. Also, normativity, understood as socially-mediated rule-following practices, reject the factualist intuitions of Chemero, Dreyfus and the enactivists by which normativity is a factual feature of non-social agents, that are able to establish and follow their own norms. The paradoxical consequences of this move are avoided if normativity is considered from an anti-factualist perspective, and then the taking advantage of affordances can be understood within a normative framework of normative practices as a reference. This view of dispositions and normativity is complemented with a minimal conceptualist view of perceptual content: in order to reconcile the anti-representational approach of ecological psychology with McDowellian conceptualism, the notion of intuition would help us to avoid both the problems of mythical stories and representationalism. Thus, if the conclusions are right, this dissertation offers a systematized analysis of affordances and our experience of them from an anti-factualist and naturalist approach. I hope to have contributed with this dissertation in a positive way to the contemporary discussions on the theory of affordances in the philosophy of cognitive sciences, and also I hope to have made available my ideas to the readers in the clearest way, by

displaying what Godfrey-Smith called ‘the healthy vulnerability of clarity’.

11.2 The influence of Ryle, Wittgenstein, Sellars and McDowell

Other aspect that has been a constant all along the dissertation is certain historical influence of a number of authors that are part of what has been known as post-positivist analytical philosophy. This post-positivist analytical philosophy is mainly based on a rejection of the ideas that guided logical positivism, which are basically the four dogmas of empiricism (the analytic / synthetic distinction, the dogma of reductionism (Quine 1951), the distinction between empirical content and conceptual scheme –sometimes identified with the Myth of the Given– criticized by Davidson (1973), and the nomological character of causation) along with some other ideas related to the nature of logic and language (such as the doctrine of logic as a form –see Etchemendy 1984). Authors as diverse as Davidson, Strawson, Rorty, Austin, or Quine are part of this post-positivist tradition, even though some of them explicitly accepted at least one of the previous dogmas. I focused mainly on four authors that have been quite influential for my work (see 6.3.1 and 9.1). These are Gilbert Ryle, Ludwig Wittgenstein, John McDowell and Wilfrid Sellars. All of them share some common points that have been decisive in my analysis on affordances:

1. Experience is a capital aspect of our mental life
2. It does not imply the acceptance of *sense-data*¹
3. Cognitive or epistemic states are not factual
4. Normativity is an essential and irreducible aspect of these states
5. Normativity is a socially mediated phenomenon

In this sense, the central idea defended in this dissertation (we should understand affordances as Rylean dispositions while the content of our experience of them

¹While the four authors reject *sense-data*, the problem of the content of perception is not discussed as such in Ryle’s and Wittgenstein’s works.

should be understood from a minimal conceptualist approach) implies, I believe, not only a recognition of the main contribution of these authors, but also a development of some of the concepts defended by them, specially the concepts of ‘normativity’ and ‘intuition’. In fact, these last two notions, along with the one of ‘disposition’, are key to understand the relationship between our experience of affordances and our rational abilities in a way that fits with some of these authors’ original proposals. Sellars claimed that a differential response to a stimulus (a disposition, a tendency) is not sufficient for explaining a *rational* behaviour. Thus, if following a rule were just a matter of exhibiting a mere uniformity, the sequence lightning-thunder would be an example of a case of rule following (Sellars 1956: §33). According to Sellars, a disposition is not enough, because an automatic response that exhibits certain uniformity does not differentiate between a rational behaviour and a non-rational one, inasmuch as many non-rational agents respond differentially to the different stimuli of their environment. What Sellars emphasizes in an explanation of what is rational behaviour is not a mere description at a psychological, physiological, physical or biological level of our movements, but a subscription of certain commitments, a support for certain assertions and, also, the acceptance of the assertions that follow from the one that is previously accepted. This is what characterizes a state as being epistemic.

The same can be said for Ryle’s approach. It could seem that Sellars’ and Ryle’s approaches are antithetic inasmuch as Sellars criticized that a mere dispositional account is incomplete in order to explain what it is to follow a norm or to be in an epistemic state. But the Rylean approach to dispositions and rule following, as we have seen in Chapters 4 and 6, is quite different from a mere differential response: it includes the exercising of criticism. The Sellarsian combination of a differential response plus a holistic rational connection of all our concepts suits within what Ryle implicitly sketched as the difference between the conditions of satisfaction and the correction criteria for a dispositional understanding of behaviour (see 6.2.1). For Ryle, non-rational agents satisfy certain conditions when their responses are what Sellars called ‘differential’: an alarm would be regulated with the environment if it triggers the sound when the external stimulus is presented under the right circumstances. But rational animals, when following norms, also exercise their criticism and act under certain correction criteria. Satisfying a condition coincides with the manifestation of a disposition under the right circumstances. But rational agents, in addition to that, follow certain correction criteria that specify the right ways

(among all possible ways) allowed for satisfying the condition. Thus, the implicit Rylean distinction between conditions of satisfaction and correctness criteria (see his chapter on know-how in *The Concept of Mind* and 6.2.1 in this dissertation) provides a framework and a tool for evaluating the difference between understanding an action or a disposition as merely differential or as a rational one, which was the difference illuminated by Sellars for properly understanding what is to follow a rule. In conclusion, making explicit Ryle's distinction between conditions of satisfaction and correctness criteria we can find a tool for evaluating behaviours *à la* Sellars.

Also, the combination of dispositions (Ryle 1949) and intuitional content (McDowell 2009) is quite helpful for understanding the Sellarsian distinction between rational and non-rational behaviour. Sellars claimed that a differential response *per se* does not guarantee that an action is a genuine case of rule following. What is important in this case is that the content of the epistemic state is conceptually, rationally connected with the rest of the beliefs and concepts that the agent possessed. In this sense, a state in which an agent manifests a disposition is an action (let's say, the act of walking when an agent perceives a situation as walkable, or the act of grasping when an agent perceives the object as graspable) that responds differentially to certain aspect of the environment; but, at the same time, the intuitional content of the agent, being conceptual but not propositional, is what connects the experiential state with the rest of the concepts that the agent possesses, and it is suitable to be exploited by the rational abilities that the agent possesses as well.

This combination of the Rylean dispositional account with McDowell's notion of intuition somehow complements the original Sellarsian picture: first, because Ryle's approach provides a detailed account of what is a disposition and how to evaluate whether a specific action is a proper act of rule following; second, because the notion of intuitional content works as the content of experience that is suitable to be related to further inferences. This last aspect is crucial, because for Sellars (1956 §38) the content of experience was propositionally structured although the relations that combined experience and rationality were not inferential. The idea of intuitional content relaxes the epistemic load of what it is to have something in view (this is, there is no need to postulate a full proposition that represents a situation as a content of a mere presentation of objects) and this makes it easier

to understand what Sellars meant with the idea that a foundation for knowledge should be based on a rational relation that was not inferential: if propositions relate inferentially among them, it is strange to think of a relation that was not inferential but still rational. If the content of an experience is intuitional, the relation to the rest of our propositions is then conceptual or grammatical, because it is the potentiality that intuitional content, as conceptual, possesses in order to be part of full propositions.

In this sense, the McDowellian notion of ‘intuition’ inherits and develops the Sellarsian project of connecting experience and reason in a non-inferential (but conceptual) way (Sellars 1956: §38). In conclusion, the conditions of individuation of the intuitional content depend on the external particular object (in this case, the affordance), but it is shaped in a normative way by our rational capacities, which makes it suitable to be combined with the rest of our concepts.

This project, then, includes the objects of analysis (affordances as dispositions from an anti-factualist perspective), the kind of experiential content that result from perceiving these properties (intuitions), and a framework for evaluating the kind of actions that result from a rule-following process, that sometimes may coincide with the taking advantage of affordances (Ryle’s implicit differentiation between conditions of satisfaction and correction criteria). The epistemological aspects that are related to this project are the ones that deal with the connection between our experiential states and the rest of our body of knowledge, that have been presented mainly in Chapter 9 and Chapter 10. Also, in Chapter 6, the Wittgensteinian arguments against the possibility of following a rule privately show under what conditions is the attribution of an epistemic state to agents who are able to distinguish between ‘it is correct / it seems correct to me’ admissible. The Wittgensteinian arguments on rule following and the attribution and recognition of a proper rule-following behaviour complement, I believe, the already mentioned ontological aspects of perception (of affordances) and action (the seizing of them). I want to finish the exegesis of these different authors by claiming that we can find in them a sufficient number of features that point to the idea that I have defended throughout the dissertation: normativity is a socially-mediated process. It is not just found in the Wittgensteinian argument. In “Sellars on Perceptual Experience”, McDowell (2009:5) claimed that we cannot understand epistemic states as the actualization of mere natural capacities: what makes a state something prop-

erly epistemic is not a factual trait, but the involvement of the conceptual. This conceptuality, if it is not found in non-social (or even non-linguistic) animals, then it is something that must come from the social (or the linguistic). This would also be an argument that complements the main Wittgensteinian argument against the enactive conception of normativity (see 7.3).

In the picture I've offered there are also aspects not just related to the epistemological and ontological features of the perception and the seizing of affordances, but also aspects that are related to a certain conception of our nature as rational animals, something that may be considered as a contribution to a field of study in philosophy sometimes known as philosophical anthropology (see Hacker 2013). The idea that the dispositional capacities that we may share with non-rational animals do not define our rational nature is a capital one, a consequence that is embraced by the four authors that I follow: our social practices give shape to our behaviour, and normativity is the feature that defines these practices. So normativity is a social, non-reducible phenomenon. Furthermore, these normative aspects that emerge from our social practices affect our dispositional or ecological behaviour. This is why I claimed in 8.4 that the taking advantage of affordances could be understood normatively inasmuch as we relate it with a normative background of interconnected social practices. As we have seen, this is what McDowell and Ryle meant with the notion of 'second nature', a way in which our typical rational approach that is the result of social interaction affects our first or primitive nature in the sense that we can rationalize and conceptualize our experiences and make them fit with the rest of our body of knowledge. This means a theory of epistemic access that was successfully presented by McDowell (1994, 2009) and that is epitomized with the *motto* "rationality permeates experience". I hope to have offered enough considerations in favour of the thesis that the origin of our second nature (this is, the essentially normative aspects of our thought and behaviour, what makes us rational) is basically a social one.

11.3 Future work

What started as a conceptual analysis of affordances indirectly implies some commitment to a general approach to our nature as rational animals and also, for this

reason, it points to (or even implies a) certain sketch of a bigger picture that draws the demarcation between the mental and the non-mental. This indirect conclusion relies on a difference between what it is acting according to a norm and what it is not, and also on a difference between the epistemic accesses of rational animals to the world compared to that of non-rational ones. As McDowell (2007a, 2007b) himself recognized, a non-rational animal may perform the same actions as a rational one, but the difference is that the rational one is able to conceptualize what she has done and she is also able to justify her actions. Non-rational animals are unable to justify their actions and they are unable to include that experience as part of an ulterior proposition to work on an inference of any kind. What if this normative aspect were the criterion for demarcating the mental from the non-mental?

Since Brentano, intentionality has been proposed to be the mark of the mental (Brentano 1874/1995; Crane 1998). Many philosophers followed this idea, while many others thought that consciousness and the qualitative character of experience were the true criterion for demarcating the mental from the non-mental² (Strawson 1994: 153, Strawson 2008: 281). A different way to oppose the idea of intentionality as the mark of the mental is to argue that typical non-mental beings show the same kind of intentionality that Brentano enounced. Some authors tried to follow this path (specially Dretske 1981, according to Crane 1998), but Molnar (2003:63) has been the one that offered a picture in which the typical features of intentionality (as Brentano depicted them) fit completely with the behaviour of non-rational beings (from animals to quarks), inasmuch as they have dispositional properties. This lead him to postulate that there is something in nature analogous to the mental intentionality that Brentano introduced in the literature, and Molnar called it ‘physical intentionality’.

In the Chapter 3 of Molnar (2003), he develops some of the clearest objections to intentionalism, based on his notion of ‘physical intentionality’. Molnar contrasts the main thesis of intentionalism, the exclusivity of intentionality as the mark of the mental, with the idea of physical intentionality: what has been traditionally known as the non-mental also possesses the main features of Brentano’s intentionality inasmuch as it is explained in a dispositional way and, in conclusion (what has been considered as) non-mental entities would be then mental. But this raises the

²Some philosophers with a Wittgensteinian and Rylean background have criticized this idea by which the qualitative character of experience is a key feature of our mental life. I support their objections, mainly the ones offered by Bennett and Hacker (2003).

suspicion that it should be certainly strange that non-mental entities like quarks, atoms, or other non-rational agents could be, using the McDowellian expression, as opened to the world (or to an outer independent reality) *as we are*, or in the same sense that we are.

So, if intentionality is not an exclusive feature of mental or rational animals, what could then be the feature that demarcates mentality? As Brentano claimed ((1874/1995: 89, my italics):

Every mental phenomenon is characterized by what the Scholastics of the Middle Ages called the intentional (or mental) inexistence of an object, and what we might call, though not wholly unambiguously, reference to a content, direction toward an object (which is not to be understood here as meaning a thing), or immanent objectivity

What Brentano emphasized, and what has been traditionally unattended, is that intentionality is the mark of the mental because this phenomenon (sometimes identified with directedness or aboutness) is sufficient for guaranteeing certain *objectivity*. This objectivity could be understood as the existence of an intentional object to which our thought is directed. But we have seen that even the traditionally-considered-as-non-mental beings possess this directness. I think we have to face a dilemma here: either we choose to follow the path of panpsychism or we choose to focus on other aspect of our cognition.

I want to propose, following a framework with a strong Rylean, McDowellian, Sellarsian and Wittgenstenian background, that it is normativity (the way I have depicted it in Chapter 6, with a social origin) the best candidate for demarcating the mental from the non-mental. This is so because I believe that the Wittgenstenian arguments on rule following are sufficient for offering a sophisticated account of what is objectivity, but not objectivity in Brentano's sense –which is the idea of the directness to an intentional object. On the contrary, this objectivity that I introduced does not stand for the merely existence of a (kind of) object to which our thoughts are directed, but for a more humble and common notion of the term: a framework for understanding if the content of an agent's thought is objective in the sense that it is independent of the agent and, hence, publicly acknowledgeable. This is important because of conclusions already mentioned in Chapter 6: Wittgenstein's

argument shows that there is a clear difference between ‘it is correct’ and ‘it seems correct to me’: if one is able to make this distinction, this means that she is accessing a public, outer reality. She is not locked in her private world. The Wittgensteinian argument allows for the distinction between ‘it seems correct to me’ and ‘it is correct’, being this last one an expression of an epistemic, *objective* access. While some animals would respond differentially to certain stimuli (their answers would be directed to an object), some others, due to their normative nature, are able to offer more sophisticated responses (responses that are part of a behaviour which is shaped by the community). Thus, all of them would be cognitive agents inasmuch as they are able to deal with the environment in different ways (both the ones that follow and the ones that do not follow a norm deal with their environments), but only some of them would be mental agents (understanding ‘mental’ as synonym of ‘normative’ or ‘rational’) inasmuch as they are able to distinguish an objective reality from a subjective point of view, differentiating between what there is and what we think that there is (hence, differentiating between our point of view or our thoughts and outer reality). The mental would be a small aspect of that bigger realm which is called ‘the cognitive’.

This idea, if combined with the ones offered before on the nature and origins on normativity, means a starting point for a further explanation of what is the mental, and then, which would be the demarcation between nomological behaviour (the mere exhibition of an uniformity, as Sellars would have claimed) and normative behaviour (our acting according to certain correctness criteria, like Ryle claimed; or our capacity for rule following, as Wittgenstein and McDowell claimed; or our capacity of giving and asking for reasons, as Sellars claimed). In the following years I would like to explore this possibility, which seems a natural and reasonable development of some of the ideas that I have presented in this dissertation. But, as I have said, this issue is the object of future research.

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Appendix A

Particulars, Givenness and affordances: on the Travis – McDowell debate

A.1 Introduction

We have seen in this dissertation why affordances should be considered as dispositions from a Rylean, anti-factualist approach (see Chapter 5). The normative character of affordances, from an anti-factualist approach, is nothing but our attribution of certain commitments and what follows from them to agents in order to explain, anticipate and make sense of their behaviour (see Chapter 6). Along with this, we have seen how a variety of conceptualism (minimal conceptualism) is the most suitable candidate to be the content of our perceptual experience of affordances (see Chapters 9 and 10). This variety of conceptualism is able to retain the main advantages of anti-representationalism and to avoid its main threats at the same time: Givenness and the myth of the mind as detached (see Chapter 9).

Here I am going to analyze the debate between Travis and McDowell on how we perceive particulars in order to show that intuitions, the main element of minimal conceptualism, is the most plausible candidate to avoid Travis' rejection of conceptualism. In the following sections I develop some arguments from conceptualism that reject Travis' objections. As I see it, intuitions can avoid Travis' main objections (mainly, generality and the idea of concepts as mediations). In the conclusion I will apply this view to how we perceive affordances.

A.1.1 The problem of how we perceive particulars

How we perceive particulars and how we are able to connect our experiences with our rationality are two of the major topics in the philosophy of mind and perception. The issues surrounding the perception of particulars have a long and profuse tradition that includes different scopes and diverse proposals. Detailing the different approaches and answers to this problem in a single chapter would be an impossible task. British empiricism is a source for understanding how we perceive particulars (Hume 1737/2001). Also, in the recent history of philosophy, British positivism (Russell 1914, Miah 2006, Ayer 1936-7) and post-positivism (Strawson 1959: Chapter 1, Austin 1962) include explicit and diverse analyses of the topic. It also called the attention of other different philosophical traditions, such as pragmatism (James 1912, Dewey 1958), that included notable modifications in the notion of ‘experience’ (as a skilful and active capacity rather than a passive one) and ‘particular’ (which includes not only single objects, but also the relations between them). Beyond English-language philosophy, phenomenology has been the main contemporary tradition that tried to explain how we perceive particulars (Husserl 1900-1, Husserl 1907, Merleau-Ponty 1962), again with different understandings of ‘particulars’ and, needless to say, a radically different account of experience. Due to the extension and variety of the topic, a detailed historical account of the different positions is a barely viable task. For this reason the main topic (how we perceive particulars) is going to be analyzed in this chapter through the work of Charles Travis and John McDowell, whose recent debate includes these ideas but also extends beyond them. The Travis-McDowell debate is, then, the latest attempt to accurately explain our experience of particulars and how we obtain knowledge from perceiving them. For this reason, and due to the continuous reference to classic authors in the discipline (Frege, Sellars, Kant, etc.), this debate is an ideal framework for addressing the most recent issues on the topic.

The second and third sections present McDowell’s and Travis’ approaches to how we perceive particulars. Travis’ position includes a critique to McDowell’s (1994) work, based on the rejection of the contentfulness of our experiential states and a defense of Givenness as the only way to connect our experience with our thoughts. This is so because, according to Travis, conceptuality involves generality that would preclude us from perceiving particulars. The fourth section offers a critique of Travis’ main ideas in this debate: I will claim that it is not the case

that we do not perceive particulars if we actualize our rationality in experience, as Travis claims. With this purpose, I stress the notions of ‘demonstrative sense’ and that of ‘intuition’ in order to show that not all forms of conceptuality necessarily imply generality. Second, if Givenness is something necessary in Travis’ view it is just because, according to him, if we hold that experience must not contain any trace of conceptuality, this is the only way that we have left to connect our experience of particulars with our general, abstract reasoning. But, if I were right in showing that not all varieties of conceptuality imply generality, this option would not be compulsory. The importance of Givenness as the only way to explain the connection between experience and reason depends solely on the idea that conceptuality precludes us from perceiving particulars because all concepts are general. Hence, once the initial claim is shown to rest on a mistake, the need for Givenness is, then, unmotivated. I conclude that conceptuality is the only way to connect experience and reason. This connection, I claim, is a vindication of McDowell’s idea of the unboundedness of the conceptual, which highlights the mythical character of Givenness and supports the thesis that experience is permeated by rationality.

A.2 Travis on perceiving particulars

If there is a clear aim in Travis’ philosophy that can be found throughout his work is to give a full explanation of the intuitive claim that our thought, to be a proper one, must be of a world that is independent of us (Travis 2004, 2007, 2010, 2013). This is not an idea that goes against what the philosophical majority thinks about the issue. But the peculiarity of Travis’ position is that he considers that, in order to accomplish that task, we are confronted with an apparent paradox: if our thoughts about the world as being independent from us depend not only on the specific items of the world but also on how do we are able to recognize them (on our abilities, for example), this very idea would be an impediment for perceiving the world as it is (this is, without any trace of our abilities, because if we perceive the world through our exclusive abilities then what is thought is not based *solely* on something that is *completely* independent from us, but on something that is also dependent on us). Hence we would not perceive the world as it is. This is also historically known as Berkeley’s puzzle, or how it is possible to get to know things as they are if, when we perceive something external to us, we do it through

some mind-dependent features (Berkeley 1710/1975: §23, Campbell and Quassam 2014).

Travis claims that if we want to be truly committed with the idea that “our surroundings bear on what we are to think” (Travis 2007: 226) then we should reject that our perceptual states possess conceptual content; and, in order to reject this, we must first reject the thesis that our experience is permeated with rationality. Travis claims that this is the only possibility to guarantee that our experience is about the world. According to his view, the main problem with McDowell’s approach is that conceptual content in experience would preclude us from perceiving particular worldly objects, because the generality of concepts only allows them to establish inferential relations with other concepts and propositions. Travis (2007: 231) claims that “[a] concept, as I will speak, is always of (being) such-and-such. As such it has a certain sort of generality”. If we perceived particular objects of the world through concepts, “[t]hen, for one to see what bore on what he was to think, he would have to see things that belonged to the conceptual” (Travis 2007: 240), and not particulars. In conclusion, if we want to make sense of our perception of particulars, our experience should have no content at all. Hence, Travis’ only option to explain how we perceive particulars is claiming that Givenness is not mythical: on the contrary, it is the only way to make our thought bear on what we are to think.

For that reason, he enounces what he called ‘the Condition’ (Travis 2007: 225, 229, 234, 240). The Condition is a commitment that he attributes to his opponents: anyone who accepts the Condition is committed to the idea that the only way to relate to particular objects in the world is thorough our conceptual abilities. If, according to Travis, a philosopher accepts the Condition, this acceptance is a symptom of a deeper ungrounded idea: the idea that we need to actualize our conceptual abilities in perception. But, according to Travis, this is not possible at all, because accepting the Condition would be the same as claiming that we cannot perceive particulars. This is so because, if we actualize our rational abilities in perception, we won’t be dealing with objects as they are: we will deal with conceptually shaped objects. Travis reaches this conclusion because the philosopher who accepts the Condition implicitly claims that all rational relations are identical to the logical ones; this is, that a person would confine rational relations to conceptuality (because logical or inferential relations can only relate conceptually-structured items). But, if we confine rational relations to conceptuality claiming that all rational re-

lations are logical or inferential, we could not make our rationality reach particular objects of the world: they would only reach bits of the conceptual. Hence, conceptualism would not allow us to perceive particulars. And this is why he attributes the Condition to his opponents, especially McDowell (1994), who claims that experience is permeated by rationality (which is the same as saying that conceptual abilities are actualized in perception).

Thus, the main idea behind the Condition is that rationality cannot relate *directly* to objects, because rational relations can only be established among conceptually shaped items. If anyone accepts the Condition, then it is not in our surroundings' objects on which our thoughts bear on, but on intermediaries (on mind-dependent objects rather than in world's objects). Hence our thought would not be dealing with particular items of the world. So, in conclusion, we should get rid of those intermediaries in order to offer a picture in which we would have experience of items of the world as such, with no trace of rationality involved in experience.

The Travisian picture for explaining how we perceive particular items of the world and how to make sense of them goes as follows: first, when we perceive particulars, as visibly before us, we do not perceive that something is such-and-such. This is so because, according to Travis, something that is such-and-such belongs to the conceptual, and not to the world. He exemplifies this division with what he calls 'Frege's Line' (Travis 2007: 229). That line separates the left, non-conceptual side (populated with objects as they are, such as Travis conceives them) from the right, conceptual side (populated with concepts and propositions that, contrary to particulars, possess an intrinsically general character). Experience is the mere presentation to our senses of items from the left side of Frege's Line; hence it is non-contentful, which would guarantee that we are dealing with particulars and not with concepts. After this presentation of worldly objects to us, our rationality would capture them in order to make them fall under a concept. For this, Travis postulates that we have certain rational abilities, those that are not inferential, which are able to capture items from the left side of Frege's Line, making them fall under items of the right side (concepts and propositions). Our way for perceiving particulars has nothing to do with our rational abilities, which are part of the generalities located at the right side of Frege's Line. If it did, dealing with particulars would be thus intoxicated by mind-dependent general elements, just like in McDowell's explanation. And that would preclude us from perceiving particulars.

Thus, when rejecting the idea that conceptual abilities are actualized in perception, Travis tries to guarantee that we perceive particulars by making perception non-contentful: by rejecting the Condition we finally can deal with objects themselves¹. Also, Travis claims that reason reaches those objects in order to form thoughts and admits that, despite the gross difference in kind between the ontology of both sides of Frege’s line, reason can reach particulars, so rational relations are not just the same as the logical, inferential relations that guide our thoughts. This may sound strange, because according to the Davidsonian (1983) view, objects ‘as they are’ cannot rationally impinge in our rationality². The risk of claiming the contrary would be falling under what is known as the Myth of the Given (see 9.1 and 10.2 for a deeper analysis on Givenness). But, according to Travis, if rational relations were restricted just to relate items located at the right side of Frege’s Line, “[t]hen, for one to see what bore on what he was to think, he would have to see things that belonged to the conceptual” (Travis 2007: 240), and not particulars. Then, according to Travis, the Given is something that we should not worry about because it is the only way to insure that we perceive particulars.

So, the options are clear for Travis: if we want to perceive particular objects of the world so that our thought would be about them, we must reject the Condition and then the idea that rationality permeates perception, because both of them imply that there are bits of the right side of Frege’s Line that affect our experiencing particular objects. At the same time, Travis claims that reason could reach the

¹This is certainly a new contrast in the recent debates on the content of experience. While most discussions have been focused on the idea that the content of experience could be solely conceptual, or if it could also include some non-conceptual aspects or elements (Evans 1982, Crane 1992, McDowell 1994/1996, Bermúdez 1995, Peacocke 1998) –or even if it could be fully non-conceptual (Cussins 2003), Travis (2007) opens a new line of research in which perceptual experience is not contentful at all. The only similar position that can be found in the specialized literature is the one of some enactivists (Hutto and Myin 2012) for whom perceptual states are not contentful either. But it should be noted that even when Travis and these (radical) enactivists are committed to the same thesis, they arrive to that conclusion through different lines of reasoning: Travis’ starts with a particular interpretation of Frege’s and Austin’s work, while Hutto and Myin’s approach is based on phenomenological insights and experimental data from the cognitive sciences.

²According to some authors, the standard Fregean view (which is also supposed to support a special variety of conceptualism) would back this claim inasmuch as “how a subject takes the world depends on the concepts she possesses” (Toribio 2007: 445). However, Travis (2007) proposes a new interpretation of the Fregean approach to cognition by which this claim would apply only to fully-fledged thoughts, and not to perceptual states. This is so because, Travis claims, certain passages of Frege’s work (1918: 59-61) suggest that what is perceivable is excluded from the domain of things to which we attach intentions or truth-value.

non-conceptual, but not in perception³. In the Travisian view, there is no necessity to appeal to the idea that conceptuality should be actualized in perception in order to experience particulars. We gain nothing when we include that thesis in our explanation; on the contrary, we would not accomplish our main aim because it would commit the Condition. And if our explanation satisfies the Condition, we do not experience particulars at all.

A.3 McDowellian answers to Travisian objections

In this section I argue against Travis' view: I aim to show that McDowell's conceptualism (see 10.2) possesses enough resources for claiming, against Travis' ideas (provided in previous section), that it does not preclude us from perceiving particulars. If I am right, conceptualism does not suppose a threat for perceiving particulars. Travis' view of contentful perceptual states is the following: if perception is contentful, then there are bits of the conceptual that play the role of *intermediaries* between us and the particulars, hence we would not perceive particulars directly. And, only the conceptual, that is general, can establish (rational, inferential, logical) relations with the conceptual. Hence, the conceptual cannot establish relations with particulars, because particulars are not the same kind of entities as general concepts are, so they cannot establish those relations with the conceptual or general. The main argument, as Travis claims, is that if we restrict rational relations to the conceptual, then there would be bits of the conceptual involved in our experiencing particulars –for example, when we see them. And Travis concludes that in those circumstances we would not see (hear, smell, touch, experience, etc.) particulars, because “[we] would have to see things that belonged to the conceptual” (Travis 2007:240). This is so because, according to Travis, in

³At this point, one relevant question would be at what moment our reason reaches the non-conceptual, if it is not at the moment when we perceive or experience particulars. Even though this needs to be explained if we want to highlight the relation between experience and rationality, I think that this question is avoided in the Travisian depiction of how our cognitive processes work. This is so because he is not offering an ontogenetic-like approach to how we shape our thoughts. The Travisian picture is not based on a bottom-up approach that goes from the moment in which we deal with particulars to the moment in which we finally possess a thought about them. On the contrary, Travis follows a top-down strategy: he starts decomposing our complete thoughts in more primitive elements, and then he figures out how our experience should be related to our rationality. For that reason, questions like at what moment our reason reaches the non-conceptual remain unanswered, just because his logico-metaphysical analysis of our complete thoughts is not concerned with this kind of legitimate questions.

McDowell's view, concepts are general and they cannot reach particulars because what is general can only establish relations with what is general. The only solution to reject Travis' conclusion without falling into the Myth of the Given would be to assure that there are concepts which are of particulars; this is, concepts that are not general or that do not possess this feature of generality. If this were so, there would be no need to claim that conceptuality cannot reach particulars.

In the rest of the chapter I argue in this direction making use of McDowell's (1984, 1994) *de re* or demonstrative senses and intuitions (McDowell 2009, see again 10.2 and 10.3). Prior to that, I will analyze McDowell's ideas on the Condition, showing that he finds that there is a common ground with Travis. After that, I will show how demonstrative senses and intuitions are not general for McDowell, and then I will show how Travis' rejection of the idea that rationality permeates experience is based on the hidden premise that the normative contrasts with the natural. If I can show that concepts can be of particulars and that normativity is part of nature, then Travis' appeal to Givenness would be unmotivated.

A.3.1 The Condition

Travis attributes the Condition to McDowell's ideas on the unboundedness of the conceptual. But McDowell claims that he does not accept the Condition. This is because, contrary to what the Condition claims, McDowell is convinced that rationality can deal *directly* with particulars. In his answer to Travis (2007), McDowell (2008: 258-9) states that he does not accept the Condition because the Condition itself is based on a false idea: the idea that rationality cannot relate *directly* to particulars. The McDowellian idea, both in his first (1994) and second (2009) stages, is that rationality can in fact accomplish that task. And this is neither incompatible with the thesis of the unboundedness of the conceptual, nor with the thesis that experience is permeated with rationality. As McDowell (2008: 259) himself puts it:

There is a condition I do accept: reason's reach extends no further than conceptual capacities can take it. It is understandable that Travis should take this to be his Condition. My condition can be put (perhaps dangerously) by saying reason's reach extends no further than the conceptual. (...) There is nothing outside the conceptual. That is as much as to say: there is nothing beyond the reach of reason. In this

context, to say reason's reach coincides with the conceptual cannot be to draw a boundary around reason's reach, leaving some things outside it. The image precisely rejects any boundary, any line beyond which reason's reach would not extend.

McDowell rejects the Condition, just like Travis. And at the same time he claims that we can perceive particulars because of the unboundedness of the conceptual. How can this be possible? This is because our dealing with particulars, our having them in view, is only possible through reason, through the activation of our conceptual capacities in experience. According to McDowell, we need to introduce reason in the picture in order to explain experience because, otherwise, Givenness is the remaining candidate. And Givenness is not an explanation, but a myth.

This is something that Travis thinks is unnecessary. Travis thinks that Givenness is not mythical. On the contrary, Givenness is needed for making our surroundings bear on what we think rather than a mere myth. Travis claims that the world's objects impinge on us, and then our reason reaches those objects through a rational (but not logical) relation. But the nature of that alleged rational relation postulated by Travis still remains unexplained.

A.3.2 Generality and *de re* senses

As we saw in section 10.2 (page 209), in McDowell's first stage of thought (1994/1996), the content of our experiential states is a proposition. The basic elements of that proposition are concepts. And concepts are usually abstract. For example, a subject's thought that 'there is an object *a* that is *F*' is a good example of this idea. The problem with this view is that both '*a*' and '*F*' are abstract, general concepts, not particulars. According to Travis, if what we see is something structured like a proposition, then we do not see particulars.

However, not all conceptual elements in a proposition are general according to McDowell. A way to answer Travis comes from the idea of *de re* senses developed by Gareth Evans and McDowell himself. McDowell (2008) has previously accepted (*contra* Travis' main accusation) that reason can reach particulars, so he would deny the Condition and this is why there would be a common ground shared by both

authors. How could rationality reach particulars directly according to McDowell? *De re* or demonstrative senses (McDowell 1984, McDowell 1994/1996, Evans 1982) are an excellent way to avoid Travis' main accusation, because demonstrative senses are not abstract or general concepts, but concepts of particulars.

When we attribute a *de re* or demonstrative belief⁴ (see 10.3), we are conceptually relating the subject that holds that belief with certain *particular* aspects of the world. The existence and identity of a *de re* sense depends on the existence and identity of its particular object, and it is often expressed with a demonstrative term ('this' or 'that', for example)⁵. These senses are always present as a part of a proposition, which is the content of a specific belief about a particular object. These *de re* beliefs must be understood in contrast with *de dicto* beliefs, which are beliefs fully characterizable in general terms. The main feature of demonstrative beliefs is that no general description can capture the particularity of the objects to which the belief in question refers. In this vein, *de re* beliefs are individuated in relation to particulars, not in relation to general descriptions. Demonstrative senses have been a constant and a key concept in the McDowellian project of depicting our experience as fully conceptual and of particular features of the environment at the same time (De Gaynesford 1996). Also, the importance of *de re* senses is not exclusively related to the McDowellian, conceptualist project. Evans (1982) was the first who inaugurated this new way of conceiving how our rationality could be directly related to the particular aspects of the world in a sense that is not 'direct' as it is in the direct theory of reference (*i.e.*, not leaving aside the 'sense' aspect of the Fregean distinction between sense and reference (Frege 1892), as the authors that accept the direct theory of reference do). This move has been widely applauded and it had important consequences for the philosophy of mind, epistemology and

⁴This is, a belief that contains at least one sense that is *de re*.

⁵This idea of the identity of the content of experience with the particulars experienced is something typical of McDowell's thought (McDowell 1994/1996: 179). Thus, this would count in favor of not understanding McDowell's approach as supporting a theory of truth as correspondence, nor the idea that content is a mere representation of a worldly states of affairs; if the content is a proposition whose constituents in turn are demonstrative senses, the identity of these senses is identical to the perceived, state of affairs. There is no correspondence, because correspondence can only be established between two different kinds of items, and McDowell claims that if the content is a proposition with *de re* senses as constituents, then the identity and existence of the proposition depends on the identity and existence of a state of affairs. It is true that McDowell uses the notion of 'representation' and 'correspondence', However, there is no correspondence between proposition and state of affairs, but rather identity between proposition and fact, given that facts are, like propositions, conceptually articulated for McDowell. This notion of identity between content and particular is clearer as adapted to his notion of 'intuition' (see 10.3)

metaphysics (Pinedo 2004). Thus, this would be a way to reject Travis' conclusion, because if the content of a demonstrative belief includes concepts whose individuation and existence depend on the existence of particular objects of the world, then this shows that not all concepts are general. And if not all concepts are general, this means that conceptualism would not preclude us from perceiving particulars.

A.3.3 Generality and intuitions

However, Travis (or the Travisian) would not be persuaded by simply emphasizing the importance of *de re* beliefs. In his line of reasoning, Travis would accept the idea of connecting our rationality with particulars through these *de re* beliefs, but he would claim that first, in experience, our perception should not include any trace of conceptuality if we want to refer to these particulars in our discursive activity. So he would accept these *de re* beliefs, but he would claim that these kind of beliefs are proper thoughts that come after our perceptual encounters with particulars. He would say this because *de re* beliefs, even though they include at least one demonstrative sense, have propositionally articulated content, which is tightly related to our discursive capacities. That is dangerous because, in his view, perception is mere presentation, and experience should not possess any trace of conceptuality: *de re* beliefs, having a propositionally structured content, would be shaped by certain degree of generality (the minimal degree of generality that we can find in a proposition; this is, that things are such and such) even when *de re* senses are not propositional as such, they would be part of a proposition that include other general items. For example, a subject's experience whose content were 'this is F', though including a demonstrative, would also include a general concept 'F'. The inclusion of the general concept 'F' is problematic, because 'F' refers to a *general way of being* in which certain particulars are understood, leaving the specific features of the object in question aside. For example, if someone had a experience which content is 'this is red', the demonstrative 'this' may captures the features of a specific particular in view, but once it is accompanied by a general concept that shows the way in which the particular is experienced, then the particular would not be understood in terms of its own distinctive specific features, but on general ways of being⁶. For this reason, Travis would insist in claiming that we are unable to perceive particulars through conceptuality.

⁶This has been expressed by different authors, see specially Brewer (2006: 173).

But, as we have seen in 10.3, intuitions are a special case of concepts, because they have a conceptual character but they do not possess any trace of generality because they are the unification of the different presentations of a particular to us. They would share with *de re* senses their distinctive character (they would be concepts individuated in relation to the existence and identity of some specific particulars), but intuitions can avoid the latest Travisian counter-argument by which demonstrative beliefs would satisfy certain minimal degree of generality inasmuch as they have a proposition as a content. Intuitions do not necessarily need to be included as an element of a proposition to be the proper content of perception. According to this, Travis couldn't easily reject intuitions, because they do not need to be propositionally structured to be fully-fledged experiential states. So they would not possess even the minimum degree of generality that beliefs possess when they include demonstrative senses in propositions. In this sense, it is very difficult for Travis to claim that if conceptuality permeates perception, we would not perceive particulars.

A.3.4 Experience, nature and normativity

Even if there were resources in the McDowellian account to show that it would be possible to claim that we can perceive particulars directly through conceptuality, Travis would insist in the idea that these mind-dependent elements would preclude us from perceiving what, according to Travis, are the objects of experience: “things in our surroundings, in *their being as they are*” (Travis 2007: 226, emphasis added). Perceiving particulars through conceptuality would not be to perceive them “as they are”, because our perception would be intoxicated by mind-dependent elements. And if we do not perceive them as they are, there would be no room for genuine thought, for though that is about the particular worldly objects that populate our surroundings. Givenness, Travis concludes, is the only solution to this problem.

This is the same as saying that, according to Travis, if our experience were permeated by rationality, those conceptual and normative mind-dependent elements that are not of the same kind as worldly things would not be available for our perception. That is, the normative aspect of our understanding, if present or at work in experience, would not let us perceive the world. This feature of our conceptuality would be a veil that would preclude us to have the world in view because

“[t]hen, for one to see what bore on what he was to think, he would have to see things that belonged to the conceptual” (Travis 2007: 240). Normativity would detach us from experiencing nature.

Here we arrive to the hidden commitment that guides Travis’ approach and that pushes him in the direction of defending that Givenness is the only way for us to have genuine thought about the world. This hidden commitment is based on the idea that nature and normativity are somehow separated, that normativity is something that does not have to do with nature. Hence, if it were present in our perception it would detach us from the world. Travis sees that there is a tension between normativity and nature in the McDowellian approach, and points at some paragraphs where McDowell seems to recognize that tension as present in his project: Travis (2007: 226) quotes McDowell (1996:xv) claiming that there is a difference in kind between the relations that constitute ‘the logical space of reasons’ and what McDowell calls ‘the logical space of nature’⁷; for example, the relation of being warranted, that is present solely in the logical space of reasons. But Travis (2007: 226, italics added) sees this difference between both logical spaces as a gap between our thought, which is normative, and nature:

In sensory experience the world impinges. That *it so impinged is a fact of nature. So, the idea is, it belongs to ‘the logical space of nature’, hence not to ‘the logical space of reasons’.* Normative relations belong to ‘the logical space of reasons’. Hence the world’s impingements cannot stand in rational relations; so nor bear on what to think.

After that, he rejects the Condition and he aims to show how Givenness is the only way to make our thought bear on what to think. If we accept the idea that reason permeates our experience, then we would need conceptual content in perception, with its normative relations included, and that would preclude us from perceiving nature. Normativity and nature are incompatible. And if we did not accept Givenness, we would be trapped in our normative relations, losing contact with nature. According to Travis, Givenness is the only solution to recover our

⁷The idea of the logical space of reasons was presented by Sellars (1956). After that, Rorty (1979: 157) differentiated between a logical space of reasons and a logical space of causal relations between objects. Here I follow McDowell’s distinction between a logical space of reasons and a logical space of norms, because he understands (following Davidson) that reasons can be causes too.

linkage to the world; and if McDowell rejects Givenness he would be trapped in a normative realm, a realm without friction with nature.

But that would make McDowell a coherentist, and he is not. He is a minimal empiricist (see 9.1, 10.2, and 10.4). He rejects coherentism because he considers that in this view the contents of our beliefs are spinning in the void losing contact with nature and he rejects the basic idea behind bald naturalism (and Givenness) that a mere scientific description of how causal impingements affect us is sufficient to explain the normative aspect of our thoughts (again in section 10.2). His entire project is based on recovering friction with nature without displacing normativity aside. Thus, McDowell claims that our encounters with the world are of a normative kind, that our experiences can justify or warrant certain beliefs. This is so because *there is no tension between normativity and nature*. For McDowell, normativity is part of nature, and there is no need to choose or to oscillate between coherentism and Givenness. As McDowell (1994/1996: xix, emphasis added) himself puts it:

My alternative holds on to the thought rejected by bald naturalism, that the structure of the logical space of reasons is *sui generis*, as compared with the structure of the logical space within which natural-scientific description situates things. Even so, my alternative makes room for us to suppose, as according to Sellars and Davidson we cannot, both that *the very idea of experience is the idea of something natural and that empirical thinking is answerable to experience*. (...) We must sharply distinguish natural-scientific intelligibility from the kind of intelligibility something acquires when we situate it in the logical space of reasons. That is a way of affirming the dichotomy of logical spaces, as bald naturalism refuses to. Even so, we can acknowledge that *the idea of experience is the idea of something natural, without thereby removing the idea of experience from the logical space of reasons*. *What makes this possible is that we need not identify the dichotomy of logical spaces with a dichotomy between the natural and the normative*. We need not equate the very idea of nature with the idea of instantiations of concepts that belong in the logical space – admittedly separate, on this view, from the logical space of reasons – in which the natural-scientific kind of intelligibility is brought to light.

Travis' move in favor of the separation of nature (or the world) from norma-

tivity is something that can only take you to oscillate between coherentism and Givenness. Travis accepts this dilemma and so embraces Givenness. But, as we have seen, there is no need to choose. The difference between the logical space of reasons and the logical space of laws is not the difference between our thought and the world, but simply the difference between two different ways in which the world (or nature) can be intelligible. This is why relations between both logical spaces are different in kind: not because one space establishes the different relations that shape the world and the other establishes the different relations that shape our thought, creating then an unbridgable gap; rather, both spaces are two different ways of understanding nature. Normative relations are different in kind from nomological relations, but not because they are disconnected from the world: they can relate us to the world, and they can satisfy our demands of warrant and answerability, recovering the idea that experiences can justify our beliefs and hence re-establishing the linkage between our thought and nature. As McDowell (1994/1996: xx, emphasis added) claims:

The mistake here is to forget that nature includes *second nature*. Human beings acquire a second nature, in part by being initiated into conceptual capacities, whose interrelations belong in the logical space of reasons. Once we remember second nature, we see that operations of nature can include circumstances whose descriptions place them in the logical space of reasons, *sui generis* though that logical space is. This makes it possible to accommodate impressions in nature without posing a threat to empiricism. From the thesis that receiving an impression is a transaction in nature, there is now no good inference to the conclusion drawn by Sellars and Davidson, that the idea of receiving an impression must be foreign to the logical space in which concepts such as that of answerability function. *Conceptual capacities, whose interrelations belong in the sui generis logical space of reasons, can be operative not only in judgements –results of a subject’s actively making up her mind about something– but already in the transactions in nature that are constituted by the world’s impacts on the receptive capacities of a suitable subject; that is, one who possesses the relevant concepts.*

Taking this as a starting point, now it is easy to see why Travis’ approach is unmotivated when he claims that, in perception, “[t]hen, for one to see what bore

on what he was to think, he would have to see things that belonged to the conceptual” (Travis 2007: 240). In differentiating between logical spaces, he was not differentiating between frameworks of intelligibility for understanding nature, but between nature and normativity, as if the last were not a natural phenomenon. This is why Travis claims that the impingements are natural, and because they are natural they are not related to normativity. But, as McDowell claims, if normativity is part of nature, then there is no tension between normativity and nature, and experience can justify our beliefs. The idea of the normative as permeating our experience does not detach us from nature; rather, it is simply a way to make intelligible our relation with nature in terms of justification, warrants and answerability. The other framework of intelligibility, that in which we use nomological vocabulary, is *as natural as* the normative vocabulary is. The only difference between both (see 2.4.2.2) is that they illuminate different aspects of the same nature in different ways; hence both kinds of relations are different. But the idea that those different kinds of relations are different does not mean that just one space or set of relations is natural, and not the other.

A.3.5 Against Givenness

Givenness is not mythical in the Travisian picture because it is the only way to assure that we perceive particulars and that our surroundings bear on what we are to think. For Travis, conceptuality would preclude us from perceiving particulars and in that case our thoughts would not be about the world. This is why Givenness is so important: because Givenness excludes conceptuality from the perceptual picture. If there is no trace of conceptuality in perception, Givenness is the only way to connect experiences with thoughts. Givenness would be a conclusion for Travis starting from the following premise: if we include bits of the conceptual in our experiences, we would not perceive particulars. So, in order to satisfy that those particulars bear on what we are to think, Givenness appears as the only possible step to guarantee Travis’ picture. But the idea by which conceptuality precludes us from perceiving particulars is not correct, as we have seen above. So, if we are able to fully perceive particulars through conceptuality, the need to include Givenness in the picture is unmotivated.

But, why is it necessary to stress the mythical character of Givenness? In the Travisian picture, the inclusion of Givenness in the argumentation is motivated by

its reliance on a false premise, that which confuses two different marks of intelligibility of nature with a differentiation between nature itself and the non-natural. In doing so, Travis' only solution to ensure that we possess genuine thoughts about the world is to accept that there should exist certain rational relations that connect the natural with the non-natural or the normative. But once we have shown that normativity is part of nature and that experience is a way of understanding our relations with the world in a way by which we can justify some of our beliefs merely through experience, there is no need for keep trying to bridge the gap between normativity and nature and to explain how we can perceive things and make them available to our thought. Travis would be still haunted by the spell of how to connect normativity and nature, while the only way to break the spell is precisely to recognize that normativity has always been part of nature.

The problem is that even if Travis fails to offer a consistent argument in favor of Givenness, this particular failure would not preclude us from finding other ways by which we could offer a coherent picture of Givenness. In the following lines, I will try to argue in favor of the claim that there is no way to appeal in favour of Givenness. We cannot find other ways to offer a coherent picture of Givenness precisely because Givenness is itself incoherent.

The problem of Givenness is one of incoherence according to the McDowellian view: “[Givenness] would be an availability for cognition to subjects whose getting what is supposedly Given to them does not draw on capacities required for the sort of cognition in question” (McDowell 2009: 256). In the case of perceiving particulars, the incoherent (and hence mythical) explanation of Givenness is that there is no conceptual content involved in the process of perceiving particulars. The peculiarity of this basic perceptual kind of state is that their foundational status is independent of their relations to other cognitive states. This basic character makes this kind of state both epistemically independent and epistemically efficacious at the same time: it is independent because its epistemic status does not depend on the rest of our non-basic cognitive states (it possesses an epistemic status that is independent from entering in inferential relations with other cognitive states), and it is efficacious because our non-basic cognitive states acquire their epistemic status when they relate to those basic states. This Givenness can be found easily in Travis' work when he differentiates between things on the left side of Frege's line that we are aware of and the rationality that reaches them from the right side. Hence, things ‘as they are’ that we are aware of are epistemically efficacious and

epistemically independent at the same time. They satisfy those requirements at once.

However, Sellars (1956) claimed that no cognitive state could satisfy both requirements. Given items, such as Travisian things as they are, are not conceptually articulated. If the content of our cognitive states relate to each other via inferences or conceptual articulation, and if only conceptually shaped items can be candidates to enter into those inferential relations, items that do not possess a conceptual shape cannot be related to our cognitive states whatsoever. Hence, the Given cannot be epistemically efficacious, because it cannot relate to the rest of our rationality. Something that is not conceptually shaped cannot be used to justify a belief or to be part of the content of a belief; a content that has the potential to exert a justificatory power. Also, Given items cannot be epistemically independent: if a knower can claim that something is epistemically independent inasmuch as she could distinguish between things that are inferentially and non-inferentially acquired, this very presupposition and knowledge of other aspects of what is acquired in one way or another is yet an epistemic relation, which is the same as saying that it is an inferential one or also that it is conceptually structured (deVries 2011/2014). So there cannot be epistemically independent cognitive states, inferentially or non-inferentially acquired⁸.

This is why Givenness is a myth: because something Given (something epistemically efficacious and epistemically independent at the same time) cannot be

⁸This is not the same as claiming that there is *no* foundation for knowledge at all. As Sellars claims: “If I reject the framework of traditional empiricism, it is not because I want to say that empirical knowledge has no foundation” (Sellars 1956 §38). The main Sellarsian idea is that, if there is a foundation, that foundation must be suitable to be connected with the rest of our cognitive states. In a certain way, this leaves the door open for accepting that these relations are of a special kind: “There is clearly *some* point to the picture of human knowledge as resting on a level of propositions –observation reports– which do not rest on other propositions *in the same way as other propositions rest on them*” (Sellars 1956 §38, italics added). What seems clear is that this foundation is suitable to connect to other cognitive states, although not in the same way in which our thoughts are connected among them (this is, inferentially). In conclusion: if the content of our thoughts possesses a propositional structure and its way to relate to other thoughts is via inferential relations, Sellars is pointing to a special kind of relation between thoughts and their foundations that is not symmetrical: a new kind of relation that would be rational (this is, conceptual) but not inferential (even when our foundations possess propositional content). This interpretation goes against certain inferentialist interpretations of Sellars’ work. For example: “He could as well have said that in characterizing an episode or state as one of *believing, or applying concepts, or grasping propositional contents* we are not living an empirical description of that episode or state but placing it in the logical space of reasons (...) *For only what is inferentially articulated is conceptually contentful* (and hence qualifies as a believable or claimable) at all” (as Brandom in Sellars, Rorty and Brandom 1997:160, italics added).

a candidate for knowledge. This is similar to McDowell's (1994) idea of the unboundedness of the conceptual. Conceptuality is the way to relate our rationality to the world. Once the impingements of the world are unified in an intuition, the cognitive state that includes that intuition is suitable to be introduced in further inferences. This is how conceptuality is something that can reach the world. There is nothing outside the conceptual because conceptuality is our natural way to know things. And the very idea of the necessity of conceptual articulation for knowledge is identical to the claim that our experience, in order to suffice as a source of knowledge, should be permeated with rationality: otherwise it would not be possible to be in a cognitive state if the content of that state is not conceptually shaped. This leads us back to Travis' confusion of the two natural spaces: an idea like Givenness includes a confusion between both spaces on its very basis, because the spaces of reasons, a mark of intelligibility that accounts for normative relations, should include contents that are able to be articulated in a way that could play a role in those relations. On the contrary, Given items are not able to be part of those relations. The intrusion of Given items into normative relations is the product of confusing both spaces. In the case of Travis, as we have seen, this confusion is the result of thinking that nature can only be explained nomologically, while normativity is not natural. But, as we have seen, normativity is natural, although it has its own mark of intelligibility. Confusing both marks leads us to inconsistencies, such as thinking that something not conceptually articulated can be part of the kind of relations that only conceptually articulated items can be part of. Thus, conceptualism should be fairly considered as the only way to provide a correct explanation for how we perceive particulars.

A.4 Conclusion

There could be still some other lines of arguments that may find problematic the idea of intuitions as the content of our perceptual experiences. I will focus on two: the idea of the importance of Frege's Line as exhaustive and the idea of the type-token identity.

It is commonly understood that a concept, to be such, should be potentially applied more than once and in several contexts⁹. It is at least strange to claim that

⁹Thanks to Marc Artiga for fruitful comments on this topic.

there could be cases when you perceive something and, in order to make sense of it conceptually, you should possess as a content of your experience a concept that is restricted to that exact spatiotemporal context, without the possibility of recalling it or even discriminate it again in other contexts. Even the strongest versions of conceptualism (McDowell 1994) claim that discrimination and employability is a necessary requirement for a concept to be such. According to some authors, this employability reveals that the nature of concepts should be understood under the light of the type / token distinction. A concept is understood as a type that it could be employed or instantiated in different contexts. This is quite in line with Fregean accounts of cognition in which you take the world depending on the concepts you possess (Toribio 2007: 445); this is, by exerting this criteria of employability. For this reason, it seems that a concept-type should be sufficiently general to cover a wide range of particular contexts in which you can employ or apply those concepts. An undesirable consequence for the idea that intuitions are the content of our perceptual experiences is that all concepts should be general.

But I do not think that this is not the case, because the need for a concept to be employed in different contexts does not amount to the idea that they necessarily need to be general. This is because it is possible to make sense of employability without appealing to the type / token distinction. Intuitions, understood as the normative unification of causal impingements of particulars on us, can be recalled and carved out to be part of our discursive activity. In this sense, we can recall a specific experience of a particular in a different context, be it conversational or not, as many times as we need. We can have different experiences in mind or we can describe many experiences in a conversation, referring to the particulars that we are discussing or to the experiences that we had at that time. Consider, for example, a wine tasting situation: when a person tastes several wines, after the first round of samples she is able to talk about recent experiences of the first wines she tasted, comparing them with the second round of wines she is tasting at that moment. In an orthodox Fregean account, someone may explain that situation by saying that she is verbally depicting the past experiences by appealing to the general concepts that she already possesses. And of course she can do it, but this could be an explanation that would come after having the intuition. Why? Because this explanation does not capture *the specific features of her particular experience* of tasting the wines of the first round. If she wants to explain what she felt, she first needs to have certain content in her perceptual experience suitable to

be carved out and be included in a linguistic expression. Any experience, due to our rational abilities, has the potentiality of being conceptualized, and putting objects under general concepts is not the only way to conceptualize them. There can be, in order to avoid Givenness, a way in which we can unify particular experiences of particular objects in the world in order to make them suitable to be included in our discursive practices. This does not imply that intuitional concepts are general, because we have employability without claiming that our intuitions are general concepts. Also, we are able to discriminate the same particulars in other contexts and, for that reason, we can recall the content that we possessed when we perceived those same particulars the first time (using demonstratives, for example). This goes in line with the conceptualist requirements of discrimination in McDowell (1994). Thus, the idea of the type / token distinction as a necessary condition for concepts is unjustified. Imposing the type / token distinction as a condition to make sense of employability is not needed, mainly because, as we can see, there is no need to appeal to this distinction in order to make sense of the employability criterion. Furthermore, the appeal to a type / token distinction for employability is ultimately a *petitio principii*, because this distinction unjustifiably presupposes the general character of concepts that I have been questioning.

The other line of reasoning recovers the exhaustive character of Frege's Line¹⁰. In Frege's Line, all possible objects (particular or abstract) are exhaustively classified, leaving no room for items like intuitions. Concepts need to be necessarily general to be differentiated from particulars or worldly items. This is because the rational but not conceptual relations that Travis refers to are the relations of saturation: when one analyzes a thought *à la* Frege, one can see how what saturate functions are particulars. If one follow Frege's semantics as applied to thoughts, one finds an exhaustive classification that leaves no room for other kind of hybrid or different classification of items because, as Luntley (1998: 2) puts it, "semantics exhaust ontology". Thus, McDowell's notion of intuition does not follow the undoubtedly great developments of Fregean and neo-Fregean semantics, which may leads us to obscurity and inaccuracy.

I believe that Frege's and McDowell's approaches to the content of perceptual experience should be analyzed, first, taking into account which are the goals and the strategies that both develop. Frege's approach is, without a doubt, a top-

¹⁰Thanks to Neftalí Villanueva and Charles Travis for fruitful comments on this point.

down strategy: he started from full thoughts and tries to analyze which are their elements by logico-metaphysically decomposing them. On the contrary, McDowell's approach is a bottom-up approach: he starts from our openness to the world, from our very contacts with the outer world, and tries to explain how we are able to form a thought about what we experience. Frege's starting point is McDowell's end of game. Furthermore, the object of study is completely different: while Frege wanted to know what is a *thought*, McDowell tries to explain how he understands what is to have an *experience*. Frege himself did not aimed to explain what is experience; Travis is the author who has applied Frege's semantics to the analysis of experience (see Travis 2013). To my mind, Travis aims at offering an explanation of one of the most philosophically interesting issues in the history of philosophy (the problem of experience, which is a constant from Plato to McDowell, for instance) by using a method (Frege's semantic analysis) that was not designed or conceived to solve that problem. In order to analyze experience (and not the thoughts that may partly result from it) and the connection of experience and thought, one has to deal with typical problems related to this field of study, such as which is the origin of concepts, which are the rational relations that we are able to establish in experience or the plausibility of the Myth of the Given. Frege's semantic analysis is not designed to deal with these kind of problems, and this makes the apparatus of Fregean analysis very restricted if we want to deal with experience. Travis' insistence in applying Frege's conceptual tools to experience places experience in a sort of Procrustean bed that leaves out all that is not of interest for Fregean analysis; paradoxically, experience is one of these topics.

In contrast, the notion of intuition is able to satisfy the requirements for explaining which are the contents of experience within a bottom-up approach. This leads us to Travis' previous confusion between the two spaces: for him, the only rational relations are those depicted by the Fregean account, be them logical or proto-logical (relations of saturation). In his approach there is no room for other kinds of relations, like that of answerability, emphasized by many authors, such as McDowell (1994). The relation of answerability is a capital one, because it allows us to understand how it is possible for the world to exert a normative impact in our rationality thorough our experience. As we can see, there are other problems and relations of interest in epistemology beyond the ones that Frege dealt with. If Frege's approach does not account for this kind of relations, maybe his tools were not designed for solving this problem of how it is that the world may constraint

our rationality through experience. The idea of intuitions explains this, offering a conceptualist approach to experience which includes the thesis that rationality permeates experience (because our understanding unifies in a normative way the world's impingements), showing that Travis' particular version of Frege is not the only theory in the philosophical market.

Also, there could be sketched a difference between concepts of objects and concepts of properties. It seems that Travis follows a Fregean explanation of how to conceptualize objects rather than how to conceptualize properties of objects. But worldly objects are not the only objects of perception: we also perceive properties. In these cases, it is not clear how Frege, or more precisely, Travis' Fregean approach, could explain how we perceive those particular properties. I believe that cases like those of colours or affordances are a good example for enhancing our view of considering how we perceive those aspects of the world. For example, we can perceive the red colour of a piece of fabric or the graspability of a cup, but those properties do not work like objects in the Travisian account in which there are Fregean relations of saturation and the like. I have the suspicion that Travis' approach is quite attached to Frege's way of making sense of an object in our discursive activity, but it leaves unexplained cases in which the object of our perception are properties, which would not behave in the same ways as objects do in Travis' approach. These cases could be explained, then, following McDowell's idea of intuitions as I have depicted it here. Furthermore, taking the case of properties into account, the idea of placing the particular property of an object under a concept ("that red") does not seem to imply that the concept should be applicable to other particular properties. Even if it is essential for a concept that it should be usable more than once, the case of properties shows that this condition should not be read as demanding that the concept should be available for more than one entity.

Anyway, it could be possible to combine a bottom-up approach to experience with the Travisian-Fregean top-down approach for decomposing thoughts. This is so because, considering that both approaches are focused on different topics and undertake different strategies, it is possible to offer a complete picture from experience to thought that may be complemented by an application of the Fregean analysis to thoughts. Inasmuch as the focus and the object of analysis are different, both analyses could be addressed at different stages or levels of the complete process. However, for this to be done, the Travisian or the neo-Fregean should accept

two things: first, she must reject the aforementioned confusion of Travis' between both spaces, showing that Frege's line confuses the left and the right side with nature and with the normative or non-natural, and also she must acknowledge the possibility of intuitions as a plausible object of perception and, then, showing that Frege's Line is not as exhaustive as it seemed to be. Once this is accepted, I believe that a defender of the intuitional content of experience would not disagree with the method of Frege's Line in order to decompose thought. So, as a general conclusion, if Travis' criticism of conceptualism as unable to account for the perception of particulars is based on a false premise, his appeal to Givenness is unmotivated. Travis claims that if there are traces of conceptuality in our experience we could not experience particulars. If concepts are general and we aim to perceive particulars, we have to reject the idea that conceptuality permeates experience to get in touch with particulars successfully, because concepts are general items that can only relate among them; if so, they would preclude us from perceiving particulars. This is why he claimed that Givenness was the only way to connect both realms. Once it is shown that Travis' approach is based on two incorrect ideas (first, the idea that all concepts are necessarily general; second, the equivocation by which two different frameworks that make nature intelligible are confused with nature itself and the non-natural), there is no need to follow Travis' path. If there is, as McDowell shows, a natural explanation in which our conceptual abilities do not preclude us from perceiving particulars (via intuitions), there is no need to defend Givenness as the only way to connect experience and reason. On the contrary, this move reveals itself as unnecessary, and this lack of necessity is what highlights Givenness as incoherent and mythical.

What is the consequence of all this for perceiving affordances? As we have seen in the dissertation, (minimal) conceptualism is able to offer a notion of perceptual content suitable to connect our experience of affordances with the rest of our rational abilities, avoiding two main threats: Givenness and the myth of the mind as detached. Givenness is an especially worrying threat. It is very easy to understand affordances as Given to us, especially if we claim that perception is direct from an ecological perspective (see 3.2.6). This direct character could make us think that, once we perceive affordances directly, there is no conceptual or rational ability involved in the perception of affordances. And then we would account for affordances in a mythical way. This is why the notion of intuition is important (see 10.3 and A.3.3): because this kind of concept is able to make us connect with

particulars, but it precludes us from subsuming those particulars into generalities at the same time, like abstracts concepts do. Thus, we can perceive and experience those particulars (in this case, the affordances), we can connect them with our rational abilities in a plausible, non-mythical way, and all of this is done without losing any contact with their peculiarities, without subsuming them into general features. If the analysis offered here is right, this notion of perceptual content is the most suitable way to connect experience and rationality without losing any trace of particularity in our experience of particular objects.

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