Gonzalo Rodriguez-Pereyra, *Two Arguments for the Identity of Indiscernibles,* Oxford University Press, Oxford 2022, pp. 144, £ 52.00, ISBN 9780192866868

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The Principle of the Identity of Indiscernibles (PII), deeply rooted in ancient philosophical traditions, particularly championed by Stoics, continues to hold significant sway in contemporary metaphysical discourse. This Principle, asserting that there cannot be two perfectly similar entities, has been a cornerstone in debates surrounding the nature of objects, their individuation, and broader questions concerning space, time, matter, etc. Rodriguez-Pereyra attempts to develop two arguments supporting a version of the Principle that should survive accusations against the Principle in recent literature (see French 2011; Berto 2017; Arenhant 2017; Worner 2021).

We can distinguish three main parts in the book. The first two chapters introduce the subject matter; the middle chapters constitute the *pars destruens* by providing two arguments against two traditional versions of the Principle of Identity of Indiscernibles (PII); conversely, the last chapter constitutes the *pars construens* by proposing two arguments sustaining a novel version of the Principle.

In Chapter 1, Rodriguez-Pereyra introduces PII. PII posits that necessarily, no two objects share all properties. More precisely, for every distinct pair of objects, denoted as *a* and *b*, *a* is different from *b* just if at least one property instantiated by *a* is not had by *b* or vice versa. This general claim must be restricted. PII stems from the idea that necessarily, every pair of objects must differ extra-numerically. Hence, not all properties instantiated by objects are relevant in formulating PII. The core claim of PII is that numerical identity (i.e., x=y) and numerical difference (i.e., x≠y) are always accompanied by identity or distinctness other than numerical. Rodriguez-Pereyra presents three formulations: PII, PIIa, and PIIb. While PIIa and PIIb have been defended in the literature, PII has remained unexplored. Pereyra's goal is to spotlight PII against

PIIa and PIIb. The three formulations of PII track the following ideas:

PII: Necessarily, no two objects share all their non-trivial properties.
PIIa: Necessarily, no two objects share all their pure properties.
PIIb: Necessarily, no two objects share all their intrinsic pure properties.

The Principle of Identity of Indiscernibles states that the properties of objects determine their numerical identity or difference. In Chapter 2, Rodriguez-Pereyra characterizes the following distinctions: pure/impure, intrinsic/extrinsic, and trivial/non-trivial. Impure properties depend on the identity of the subject of the property (e.g., being identical to Napoleon, being the wife of Napoleon, being the Eiffel Tower), while pure properties do not (e.g., being red, being a wife). Intrinsic properties are not related to external objects (e.g., having two legs), whereas extrinsic properties are related to external objects (e.g., being a brother) (cf., Rodriguez-Pereyra 2017). The most crucial distinction in formulating PII concerns the dichotomy between trivial and non-trivial properties. Roughly, the character of trivial properties merely establishes that two objects differ by establishing only a numerical difference (e.g., properties of identity, difference, or involving properties of identity or difference). Conversely, non-trivial properties are negatively defined as all those that are not trivial, namely all those that produce extra-numerical differences. Building on this distinction, Rodriguez-Pereyra argues that non-trivial properties encompass not just pure but also impure and intrinsic and extrinsic properties.

Chapters 3 and 4 constitute the *pars destruens* of the book. Rodriguez-Pereyra provides two arguments against PIIa and PIIb. As a preliminary to his arguments, in Chapter 3, Rodriguez-Pereyra examines Black's argument (see Black 1952), according to which the world could have contained only two objects sharing all their pure, intrinsic, and extrinsic properties. In Chapter 4, starting from the assumption of Black's scenario, Rodriguez-Pereyra argues against PIIb, namely that two objects necessarily differ for some pure intrinsic property, and PIIa, namely that objects necessarily

differ in their pure properties. The main assumption is that Black's scenario renders PIIb false. First, the author assumes the metaphysical possibility of an iron sphere possessing a specific set of intrinsic pure properties. If it is possible for one iron sphere to have these properties, it is also possible for two things to share them. Consequently, it is metaphysically possible for two iron spheres to have the same intrinsic pure properties, falsifying PIIb. Second, having invalidated PIIb, Rodriguez-Pereyra proceeds by refuting PIIa through a subtraction argument that presupposes the falsity of PIIb. This argument posits the possibility of a world w containing two iron spheres that share all their intrinsic pure properties and are symmetrically and independently related. The conclusion is drawn based on the options that either these spheres are the only objects in w or there are more objects than the spheres in w. If the spheres are the only objects in w, they share intrinsic and extrinsic properties. If there are other objects, another possible world w* exists where the spheres and their parts share all pure properties. The argument concludes that a possible world exists with two iron spheres sharing all their pure properties, thereby rendering PIIa false.

The last chapter constitutes the *pars construens*. In Chapter 5, Rodriguez-Pereyra argues in favor of PII, namely the version of the principle according to which things necessarily differ for some non-trivial properties. PII can be defended because Black's scenario does not refute it. Indeed, ranging over non-trivial properties (NT properties), PII allows discerning objects through impure or relational properties. Rodriguez-Pereyra proposes two interconnected yet distinct arguments. The first argument demonstrates that all objects cannot share all their NT properties. The second argument relies on unsharable properties (i.e., properties unique to an individual). In section 5.2, the author introduces the first argument in support of PII, which is grounded in the *Non-Mutual Descriptive Dependence Principle* (NMDD). NMDD asserts that no two concrete objects are necessarily covariant for some NT- properties. In terms of possible worlds, NMDD implies that in every possible world, every pair of concrete objects differs for some NT properties. Thus, coexistent objects necessarily co-vary for some NT properties. This argument establishes that if NMDD holds, objects cannot share all their NT properties. The reasoning relies on the necessity of objects co-varying for NT properties.

This co-variation can be understood through the lens of determinate/determinable relations, where objects share a broader property in a determinable sense (e.g., being colored) but manifest it in specific, determinate ways (e.g., being green). This discussion works as a basis for the second argument favoring PII. Rodriguez-Pereyra argues that properties such as being colored green are NT properties, as they produce extra-numerical differences. Therefore, if both objects *a* and *b* are green, they cannot share all their non-trivial properties. This argument extends to all objects with properties instantiating the determinate/determinable relation.

Starting from this first argument, Rodriguez-Pereyra emphasizes the necessity of objects existing in time and argues that the property of an individual *a* of coexisting with *a* as *a* is non-trivial. (i) Every individual *a* has the property of coexisting with *a* as *a*. (ii) No object distinct from *a* can hold the property of coexisting with *a* as *a*. So, (iii) no two objects share the property of coexisting with *a* as *a*. On the grounds of these premises, no two objects necessarily share all their non-trivial properties. Where there is a grounding relation between two properties, an object has the grounded property because it has the grounding property, not because some other object has it. Remarkably, NT properties are necessary, extending the argument to abstract objects. According to this argument, PII is true because every object necessarily has at least an NT property that it cannot share with any other object.

Ultimately, *Two Arguments for the Identity of Indiscernibles* presents intriguing insights into a principle widely accepted since the time of the Stoics. It is imperative to consider the potential metaphysical implications arising from assuming PII. On the one hand, Rodriguez-Pereyra seems to elevate the Principle of Identity of Indiscernibles to a new level of significance. On the other hand, PII requires that Principle's metaphysical role and its consequences to be examined.

First, Rodriguez-Pereyra advocates for a version of the Principle that allows impure properties to mark extra-numerical differences. This stance might challenge philosophers who believe the world is reduced to qualitative facts, i.e., anti-haecceitism. On the other hand, it can be seen by some as a motivation for sustaining haecceitism, namely the view according to which non-qualitative facts constitute the fundamental level of reality (Torza 2011; Scarpati 2021).

It is worth noting that the book does not consider deeply the possible existence of haecceities (properties like being *x* or *Xness*), which are non-qualitative, indefinable properties and may be part of the non-trivial properties (see Plantinga 1975, 1983; Rosenkratz 1993). If such properties were to exist, they would constitute the individual essence of an object and could be regarded on a par with properties like co-existing with *a* as *a*.

Lastly, the Principle has traditionally been employed in the literature as a sufficient condition of identity and the principle of individuation of objects. Namely, it should inform us whether any given objects *x* and *y* are identical or distinct and explain why any given object *x* is the very object it is (Lowe 2003, 2012). While employing any formulation of the Principle (i.e., PIIa or PIIb) may pose challenges when attempting to provide a principle of individuation, it is essential to recognize that PII cannot fulfill this role. In effect, PII permits drawing differences through properties (e.g., being coexistent with *x* as *x*) that, if enrolled as identity or individuation conditions, would make identity criteria circular leading to the idea that having a criterion for discerning objects is not sufficient for establishing adequate identity criteria.

Overall, Rodriguez-Pereyra's exploration in *Two Arguments for the Identity of Indiscernibles* delves deeply into the historical lineage of this foundational Principle and rejuvenates contemporary metaphysical inquiries. Rodriguez-Pereyra offers a compelling journey through the intricacies of this philosophical cornerstone. His research invites readers to evaluate the profound implications of PII for our understanding of reality. With clarity and insight, Rodriguez-Pereyra presents two compelling arguments that defend the viability of the Principle of Identity of Indiscernibles and shed new light on its enduring relevance in contemporary philosophical discourse.

Rodriguez-Pereyra's work weaves a rich tapestry of ideas, making *Two Arguments for the Identity of Indiscernibles* an indispensable companion for anyone seeking a deeper understanding of the Principle of Identity of Indiscernibles. In conclusion, his work underscores the importance of the Principle of Identity of Indiscernibles, serving as a valuable resource for those exploring the intricacies of this metaphysical inquiry. His thoughtful analysis and scholarly approach elevate this book to a noteworthy contribution to philosophical

discourse, providing readers with insights to ponder and explore further.

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