

**Refutation of racism based on individualism and exceptionalism**

We assume the method and apparatus of Meth8/VL4 with Tautology as the designated proof value, **F** as contradiction, **N** as truthity (non-contingency), and **C** as falsity (contingency). The 16-valued truth table is row-major and horizontal, or repeating fragments of 128-tables, sometimes with table counts, for more variables. (See ersatz-systems.com.)

LET  $\sim$  Not,  $\neg$ ; + Or,  $\vee, \cup, \sqcup, |$ ; - Not Or; & And,  $\wedge, \cap, \sqcap, \cdot, \circ, \otimes$ ; \ Not And,  $\uparrow$ ;  
 $>$  Imply, greater than,  $\rightarrow, \Rightarrow, \mapsto, >, \supset, \rightsquigarrow$ ;  $<$  Not Imply, less than,  $\in, <, \subset, \neq, \neq, \leftarrow, \lesssim$ ;  
 $=$  Equivalent,  $\equiv, :=, \Leftrightarrow, \leftrightarrow, \hat{=}, \approx, \simeq$ ; @ Not Equivalent,  $\neq, \oplus$ ;  
 $\%$  possibility, for one or some,  $\exists, \exists!, \diamond, M$ ; # necessity, for every or all,  $\forall, \square, L$ ;  
 $(z=z)$  **T** as tautology,  $\top$ , ordinal 3;  $(z@z)$  **F** as contradiction,  $\emptyset, \text{Null}, \perp$ , zero;  
 $(\%z\>\#z)$  **N** as non-contingency,  $\Delta$ , ordinal 1;  $(\%z\<\#z)$  **C** as contingency,  $\nabla$ , ordinal 2;  
 $\sim(y < x)$  ( $x \leq y$ ), ( $x \subseteq y$ ), ( $x \sqsubseteq y$ );  $\sim(x < y)$  ( $x \geq y$ );  $(A=B)$  ( $A\sim B$ ).  
 Notes: for clarity, we usually distribute quantifiers onto each designated variable; and for ordinal arithmetic, the result is implied.

From: Turley, J. (2023). Colorado College professor: Astrophysics is racist due to emphasis on individualism and exceptionalism.

[jonathanturley.org/2023/01/15/colorado-college-professor-astrophysics-is-racist-due-to-emphasis-on-individualism-and-exceptionalism/](https://jonathanturley.org/2023/01/15/colorado-college-professor-astrophysics-is-racist-due-to-emphasis-on-individualism-and-exceptionalism/) jturley@law.gwu.edu

Natalie Gosnell: "As an astrophysicist, I'm a product of institutions that are steeped in systemic racism and white supremacy... The [tenets] of white supremacy that show up [in physics] of individualism and exceptionalism and perfectionism... it's either-or thinking, and there's...no subtlety, there's no gray area." (0.1)

**Remark 0.1:** The Colorado College (CC) is *unique* and *exceptional* because it is located in Colorado Springs, CO where there are more recreational cannabis retail outlets per undergraduate students than any other large city in the US. The 2021 undergraduate student bodies of CC plus UCCS as  $2241+7782 = 11023$  is divided by pot shops in the driving community as 127 for about 85 students per pot shop. This explains the perennial reason why NCAA Divison-1 CC hockey does poorly on an annual basis despite the new on-compass ice arena auditorium.

We reduce the argument to this:

If racism implies both individualism and exceptionalism and academic subject matter implies exception and individual, then academic subject matter is racist. (1.1)

LET  $p, q, r, s$ : individual(ism), academic subject matter, racism, exceptional(ism)

$((q\>(p\&s))\&(r\>(p\&s)))\>(q\>r)$ ; TTTT TTTT TTT**F** TTTT (1.2)

**Remark 1.2:** Eq. 1.2 is *not* tautologous, although nearly so, to refute the conjecture, denying racism.

See: [https://www.coloradocollege.edu/basics/contact/directory/people/gosnell\\_natalie.html](https://www.coloradocollege.edu/basics/contact/directory/people/gosnell_natalie.html)  
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