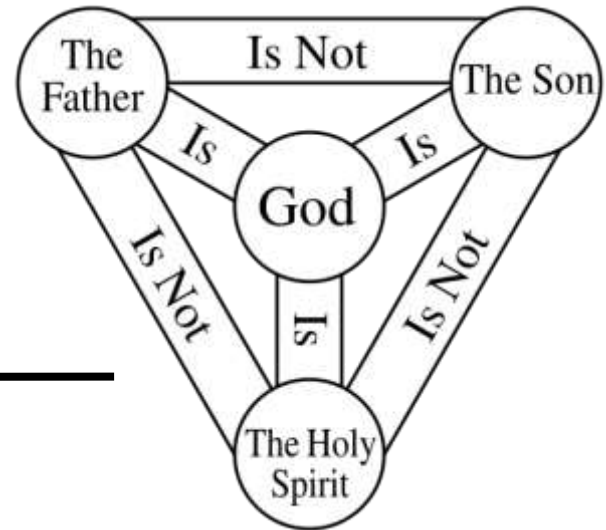


$1 + 1 + 1 \equiv 1$ The Triple Point Analogy to the Trinity



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Definition of the Trinity

As Given by Theologians

A definition of the trinity is not easy to construct. Most descriptions list a set of propositions balancing oneness and threeness.

My best rendering . . .

God is one with respect to essence and three with respect to persons. The fusion is so complete that the persons have equal authority and powers while maintaining distinct personalities and functions.

Each member of the Godhead is referred to as a person, meaning a distinct individual with intellect (can think), emotion (can feel), and will (can choose). The word **person guards against trimodalism (three manifestations of one god) and the phrase **one essence** protects against tritheism (three separate gods). At the same time, the whole undivided essence of God belongs equally to each of the three persons.**

The Triple Point Analogy to the Trinity

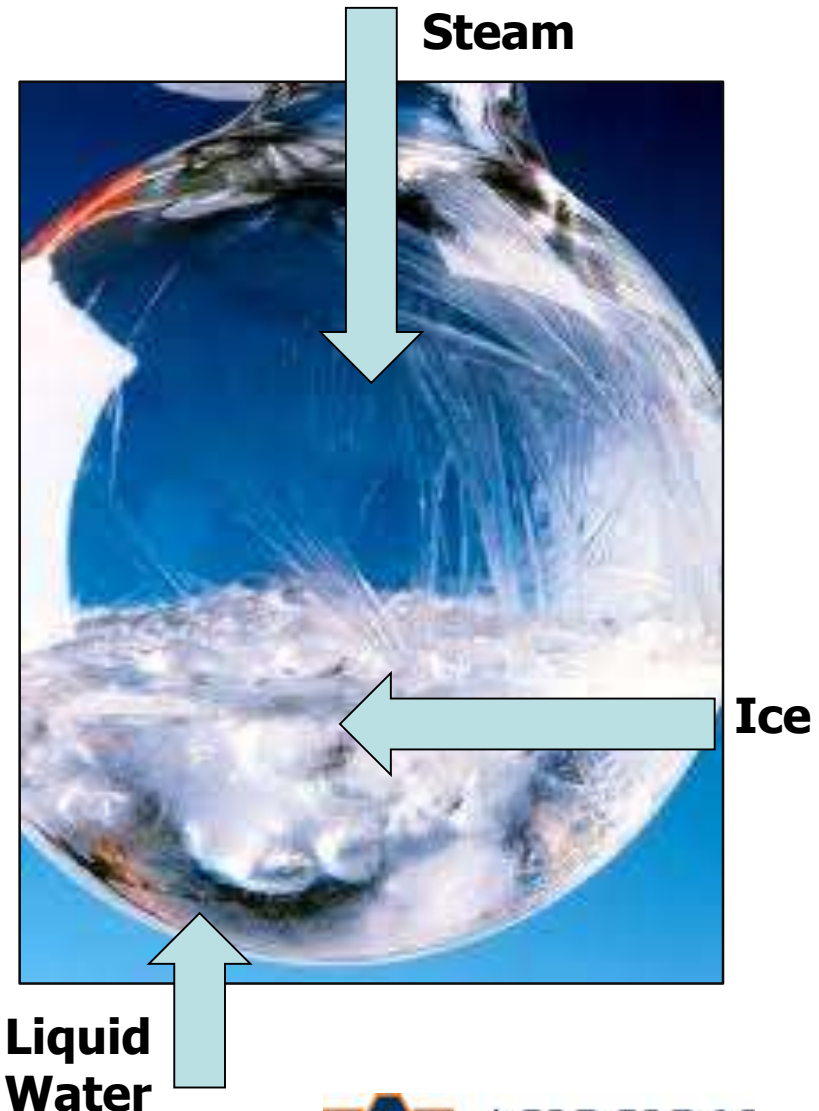
Most Common Example is Water

The triple point is the point where the solid, liquid, and gaseous forms ("phases") of a substance coexist in a state of dynamic equilibrium.

The important points are:

- 1) three phases of matter coexist.
- 2) the equilibrium is dynamic.
- 3) the phases have distinct properties despite being one and the same substance.

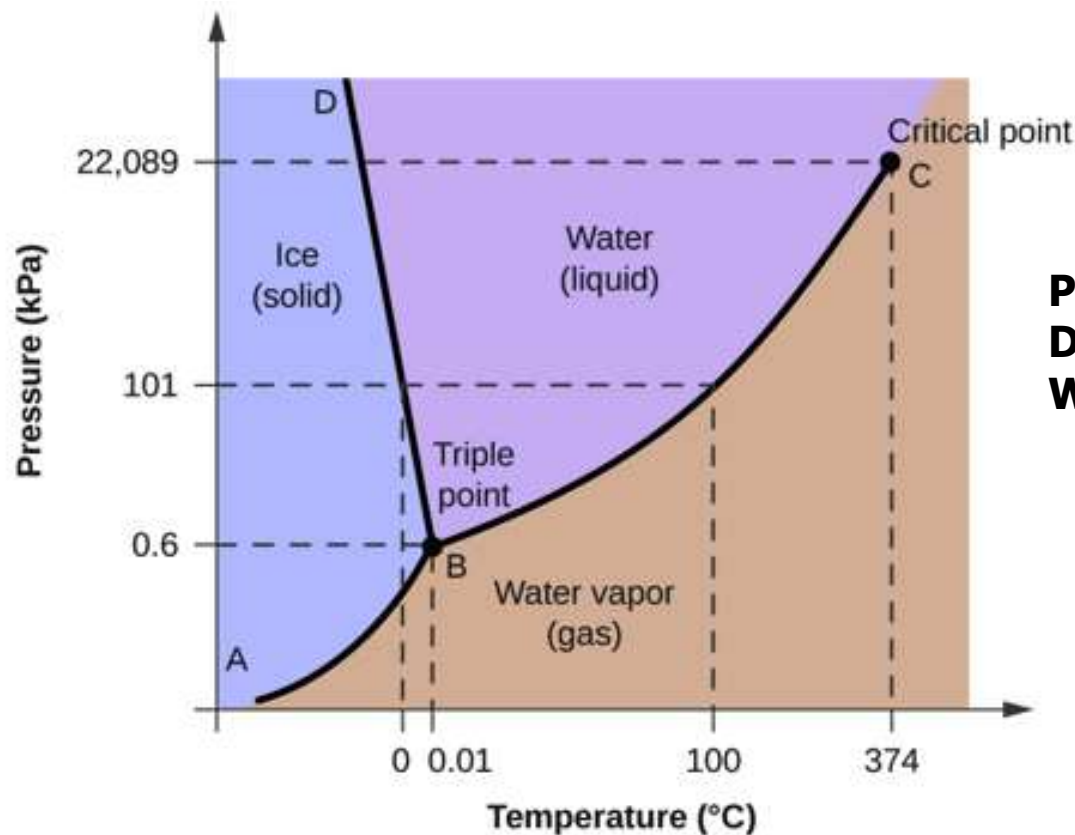
The triple point of water cannot be seen without special apparatus. See the video <https://www.youtube.com/watch?v=MP6MVLWuNZQ>



The Triple Point of Water

Graphical Illustration

The triple point for water means that coexistence of ice, water, and steam occurs at only one specific temperature ($0.1^{\circ}\text{C} = 32^{\circ}\text{F}$) and one specific pressure (0.6 kPa , or $6/1000$ below atmospheric pressure).

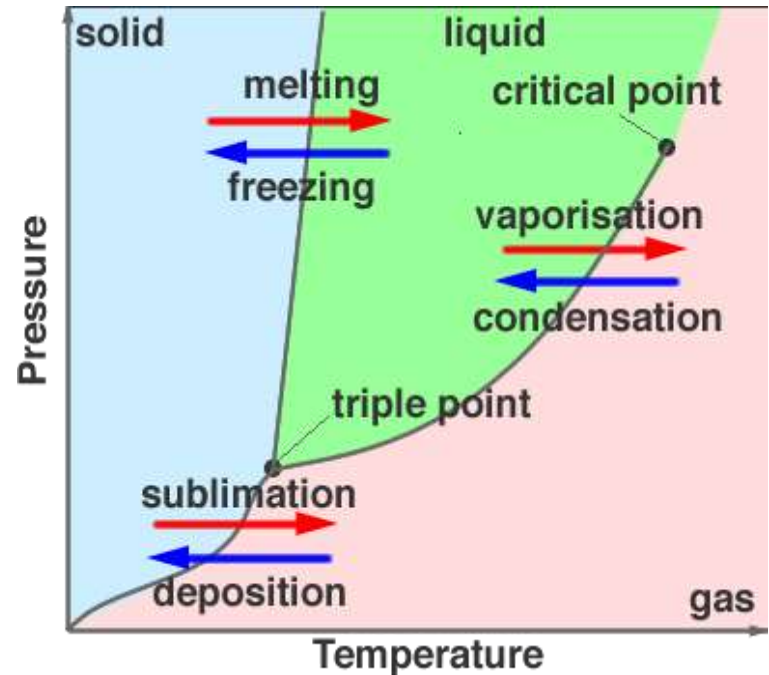


**Phase
Diagram of
Water**

The Triple Point for Water

Distinctive Features

- **The equilibrium is dynamic rather than static, with transitions occurring continuously between the coexisting phases, but in a way such that no apparent change is evident with the naked eye. At the triple point, boiling and condensing, melting and freezing, and subliming and freezing of gas are all going on simultaneously. There is complete molecular intermixing among the phases.**
- **The triple point is NOT equivalent to the mere existence of three forms of matter, but defines a unique relationship between solid, liquid, and gas. Mere existence of three phases of matter is trimodal and unsuitable for analogy to the trinity. The triple point is not 3 forms of matter nor matter in 3 forms.**



The Trinity-Triple Point Analogy

Singular Nature with Three Coequal But Distinct Subsistences

Trinity	Triple Point
Singular Nature with Three Coequal But Distinct Persons	Singular Nature with Three Coequal But Distinct Phases
<p>The Godhead contains a single essence with three Persons able to merge without loss of nature. The Father, Son, and Spirit have different personalities, but the same divine nature.</p>	<p>The three states of matter at the triple point are conjoined by a common molecular structure, but the phases are different when viewed macroscopically. The differences are the distinct physical properties held by the different forms of matter, such as compressibility, thermal and electrical conductivity, energy, etc.</p> <p>This leads to the union of three into one without loss of “nature” of the phases.</p>

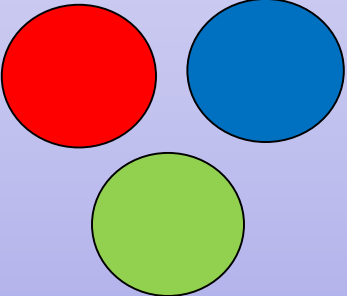
The Trinity-Triple Point Analogy

Properties Constant with Time

Trinity	Triple Point
Immutability	Equilibrium States
<p>God is immutable, meaning that the nature and attributes of the persons of the trinity are invariant with time.</p>	<p>Equilibrium when the properties of the system do not change with time. The equilibrium at the triple point is dynamic rather than static, which occurs when equilibrium is maintained by equal rates of forward and reverse reactions, as opposed to equilibrium maintained by the absence of reaction.</p> <p>At the triple point, transitions are continually occurring among the phases, and no net change in the relative amounts of liquid, solid, and gas is measurable.</p>

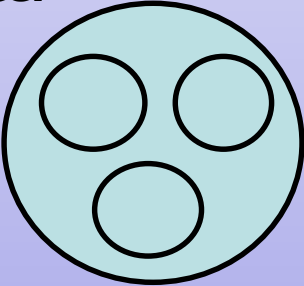
The Trinity-Triple Point Analogy

Neither are Tritheistic

Trinity	Triple Point
Not Tritheistic	Not Tritheistic
<p>Tritheism holds that there are three Gods rather than three persons in one God. The persons of a tritheistic God refer to three separate deified beings that deny the unity of the divine essence.</p>  <p>Tritheistic View of God</p>	<p>The triple point is NOT tritheistic in that there are not three phases in the sense of taking solid, liquid, and gas from separate locations and combining them mechanically. There is unity of essence at the triple point, with the phases tied together at a particular set of thermodynamic conditions. The triple point of water does not represent the existence of three "waters" united merely by purpose. There is something more in the union of the three phases at the triple point than merely the sum of the phases.</p>

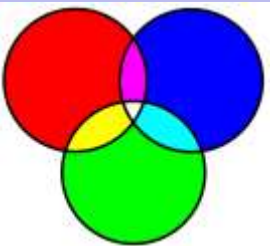
The Trinity-Triple Point Analogy

Neither are Trimodal

Trinity	Triple Point
Not Trimodal	Not Trimodal
<p>Trimodalism holds that the Godhead is a trinity of revelation rather than a trinity of persons. A trimodal God has three aspects or manifestations of one God, with no internal distinctions within the divine substance.</p>  <p>Trimodal View of God</p>	<p>The triple point is NOT trimodal because the phases possess distinct and unique properties and are not merely different manifestations of the same thing. Although composed of identical molecules, ice is different from steam and water and exhibits different physical properties. Further, the phases of the triple point are <u>locked together</u> in a state of dynamic equilibrium, which prohibits manifestation of the individual states of matter except by destruction of the triple point. No one phase can exist apart from another.</p>

The Trinity-Triple Point Analogy

Coequal Sharing of the Singular Nature without Subordination

Trinity	Triple Point
Trinitarian Relationships	Phase Relationships
<p>The Godhead is sustained by a self-contained mutuality of relations, and no one person of the trinity is or can be without the others. There is a coequal sharing of the singular divine nature without intrinsic subordination of any Person. The undivided essence belongs equally to each of the Persons and each possesses all the attributes of deity.</p>  <p>Trinitarian View of God</p>	<p>The interdependence of phases at the triple point is reminiscent of the relationships evident between members of the trinity. Each phase at the triple point derives and sustains its character by mutual collaboration with the other two phases. The triple point phases cannot exist independently, but are interlocked at equilibrium. No one state of matter is more fundamental than another, nor does the substance lose its identity because it exists in three concurrent forms.</p>

The Trinity-Triple Point Analogy

Similar Procession and Generation Properties

Trinity	Triple Point
Ontological Properties	Ordering of Phases
<p>The ontological trinity relates to the internal operations of the Godhead and deals with order in the trinity, saying that order in the trinity is logical (rather than chronological or in degree of majesty). It does this in two ways . .</p> <p>In procession, Scripture refers to the Father as first, the Son second, and the Holy Spirit third. In generation, the Father is neither begotten by, nor proceeds from any other person; the Son is begotten of the Father, and the Spirit proceeds from the Father and the Son (Jn 15:26; Jn 14:26).</p>	<p>There is a natural ordering of phase relations, specified by nature's universal desire to seek lowest energy. When seeking lowest energy, phase changes may occur and one phase may be considered to "beget" or "proceed from" one another.</p> <p>While it is difficult to attach the designation "first" to the solid phase, a fundamental concept exists which allows for phase ordering in a way suggestive of the trinitarian ordering.</p>

The Trinity-Triple Point Analogy

Similar Economical Properties

Trinity	Triple Point
Economical Properties	Phases Featured
<p>The economical trinity refers to the division of labor among the Persons and relates to the administration of God's purposes external to the Godhead. It does this in two ways . .</p> <p>Scripture represents all things as being <u>out of</u> the Father, <u>through</u> he Son, and <u>in</u> the Holy Spirit. The Father is the source of all things, the Son brings them to pass, and the Holy Spirit applies them (2 Thess 2:13; Jn 14:16-17).</p> <p>While the works of God are of the three persons jointly, one person is usually <u>featured</u>. Creation is ascribed primarily to the Father (Gen 1:1), redemption to the Son (1 Pet 1:2), and sanctification to the Spirit (Gal 5:22-23).</p>	<p>A single triple point phase can be featured in a given application. For example, in the case of water, steam is used to drive locomotives and heat buildings, ice is an effective coolant and friction reducer, and water sustains the human body. While such applications are normally carried out far from equilibrium and no need exists for maintaining three coexistent phases at the triple point, use of a substance at its triple point is not ruled out in principle.</p>

The Trinity-Triple Point Analogy

Dynamical Interaction Between Triune Members Generated and Sustained by Mutual Collaboration

Trinity	Triple Point
Generation and Spiration	Dynamic Equilibrium
<p>Eternal generation refers to the process whereby the Son receives possession of the whole divine essence without any division, alienation, or change. Each person of the trinity can be said to “give life” to the other persons, called generation and spiration in the Godhead.</p> <p>The modifier “eternal” means that generation cannot be compared with human generation rather than implying a time when the Son “was not.”</p> <p>A key verse illustrates the notion. “For as the Father hath life in himself, so hath he has given to the Son to have life in himself; and hath given him authority to execute judgment also, because he is the Son of Man” (Jn 5:26-27).</p>	<p>The phases at the triple point are generated and sustained by phase transitions between the solid, liquid, and gaseous forms of matter. At the triple point, boiling and condensing, melting and freezing, and subliming and freezing of gas are all going on simultaneously in dynamic equilibrium. The phases at the triple point are generated and sustained by mutual collaboration.</p>

Study Questions

- **What are the principal deficiencies of the triple point analogy?**
- **Given the view that the Godhead may be crudely represented by a “divine” phase diagram, how would you label the axes? In other words, what X- and Y- variables determine the actions of the Godhead?**
- **Can the trinitarian equilibrium be upset? By Satan?**
- **What is the mechanism by the which the members of the trinity share the divine essence? What do the “bounding surfaces” between the members of the Trinity consist of?**

Further Reading:

- **M. J. Bozack, “Physics in the Theological Seminary,” J. Evan. Theolog. Soc. 36/1 (March 1993) 65-78.**
- **Charles C. Ryrie, Basic Theology, Victor Books, 1986.**
- **Wayne Grudem, Systematic Theology, Zondervan, 1994.**