Kant’s second invocation of incongruent counterparts occurs in his Inaugural Dissertation of 1770, a work written and presented on the occasion of his promotion to Professor of Philosophy at the University of Königsberg. In this work, he no longer used incongruent counterparts to show that space is an absolute being. Instead he used them to illustrate a point that he was later to defend at greater length in the Transcendental Aesthetic of the *Critique of Pure Reason*: our representation of space and spatial figures is intuitive, not conceptual. Here is how he put it in the Dissertation:

> We cannot by any sharpness of intellect describe discursively, that is by intellectual marks, the distinction in a given space between things which lie towards one quarter and things which are turned toward the opposite quarter. Thus if we take solids completely equal and similar but incongruent, such as the right and left hands (so far as they are conceived only according to extension), or spherical triangles from two opposite hemispheres, although in every respect which admits of being stated in terms intelligible to the mind through a verbal description they can be substituted for one another, there is yet a diversity which makes it impossible for the boundaries of extension to coincide. It is therefore clear that in these cases the diversity, that is the incongruence, cannot be apprehended except by pure intuition.

The difference between right and left can only be grasped intuitively, through vision or some similar faculty. For readers unfamiliar with Kant, it should be pointed out that ‘intuition’ is the translation of the German *Anschauung* — a word that could also be translated as ‘perception’ or ‘view’.

In ‘The Difference Between Right and Left’, Jonathan Bennett proposes an illuminating way of restating Kant’s point. According to Bennett, Kant is claiming that the meanings of the terms ‘left’ and ‘right’ can be explained only be reference to sensorily presented examples — only by *showing*, not by *telling*. Putting the point another way, we must have recourse to an ostensive definition; a verbal definition would not suffice. Bennett calls this claim the *Kantian Hypothesis*. 
The Kantian Hypothesis is closely related to what Martin Gardner calls ‘the Ozma Problem’ in his second paper in this volume. Gardner frames the problem this way:

Is there any way to communicate the meaning of ‘left’ [to the inhabitants of some Planet X in a distant galaxy] by a language transmitted in the form of pulsating signals? By the terms of the problem we may say anything we please to our listeners, ask them to perform any experiment whatever, with one proviso: There is to be no asymmetric object or structure that we and they can observe in common.2

If the Kantian Hypothesis is correct, the answer to Gardner’s question must be no. The hypothesis says that you cannot communicate the meaning of ‘left’ without showing, and Gardner’s proviso says, in effect, that no showing is allowed.

One slight refinement of the Kantian Hypothesis is necessary. ‘Right’ and ‘left’ are two members of what we may call the chiral family of terms, a family that also includes ‘clockwise’, ‘counterclockwise’, the names for the various points of the compass, and the labels for the ends of magnetic poles. We can give a verbal definition of ‘right’ if we are permitted to use other chiral terms in the definition. We can say, for example, that an outstretched hand with its palm pointing up and its fingers pointing north is a right hand if and only if its thumb points east. The Kantian Hypothesis should therefore be restated as follows: we cannot give a verbal definition of any chiral term except by using other chiral terms; hence, if any of the chiral terms are to be understood, at least some of them must be understood ostensively.

Bennett and Gardner both defend the Kantian Hypothesis, up to a point, by showing that a wide variety of strategies for conveying our meanings of ‘left’ and ‘right’ to Planet X will not work. For example, we could tell them that if the fingers of a hand curve in the direction of rotation of a normal screw when it is being driven into a plank, the hand is a right hand if and only if its thumb points toward the plank. This obviously will not do, since for all we know, screws on Planet X are threaded in the opposite direction from that of standard screws on Earth. Any other appeal to artifacts is similarly doomed to failure. Nor do we fare any better if we appeal to biological or chemical phenomena, such as spiraling vines or molecular structures, since for all we know, these things, too, occur with the opposite handedness on Planet X. And, of course, if we were to send along a specimen of one of our screws or plants or chemical compounds, we would be violating the