ject made 15 settings in each condition. The method of average error was followed and deviations from the correct setting were scored + or −, depending on whether the comparison stimulus was set at a greater or lesser (closer to the subject) distance.

The average error score of the 23 subjects in the vertical condition was −4.73 inches (standard deviation, 3.81 inches). In general, then, the subjects drew the lower light ahead of the upper light when they attempted to equalize the positions. Their average error score in the horizontal condition was −0.86 inch (standard deviation, 2.17 inches). With 44 degrees of freedom the t of 4.23 between vertical and horizontal settings is significant at better than the .01 level. Only two of the 23 subjects tended to be satisfied with settings that resulted in the lower light being set beyond the upper one. In the horizontal condition seven of the subjects had such positive constant errors.

It is evident that a negative constant error was markedly and predominantly present when the subject tried to locate a lower light below an upper light. This tendency was also present (significantly greater than 0.0) in the horizontal condition but to a far less degree.

From the results it is clear that the street scene was successfully reproduced in the laboratory in a miniature model. The illusion is open to further exploration of such variables as intensity and color of lights, visual angle, location with respect to eye level, and so forth. The present limited objective was to demonstrate the illusion per se.

Under the conditions that were established it appears that an illuminated stimulus that is in fact slightly farther away (the upper light) appears closer to the observer than a similar light at eye level. Although the present experiment did not explore the variable of degree of elevation, it is clear from street observations that the illusion disappears as the visual angle is increased. The present conclusions apply only to the angle employed, that is, 2 deg, and to the unstructured or untextured conditions. Whether "the higher of two objects will generally appear more distant" may depend on how much higher it is in the absence of other cues.

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11 August 1967

Intrauterine Devices: Contraceptive or Abortifacient?

In his report on the effects of intrauterine contraceptive devices (IUD), Wynn (*1*) states that one manner in which the IUD functions is that it "creates an environment unfavorable for blastocystic attachment;" he then goes on to say that this mechanism is therefore "primarily contraceptive rather than abortifacient. . . ." This conclusion is, strictly speaking, incorrect, since "contraception" means "against conception" (which refers to fertilization) (*2*) and, moreover, is artificial, since blastocyst formation requires not only fertilization, but also development of the resulting conceptus. From a strictly scientific point of view—arbitrary definitions aside—the development of a new individual begins with fertilization of the ovum; prevention of implantation is therefore as "abortifacient" in this sense as would be dislodgement of an implanted blastocyst. On this basis, the IUD's must still be considered abortifacient.

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Contraception, a term introduced in 1910, means prevention of conception. The *Oxford English Dictionary* defines conception as the "fact of being conceived in the womb," adding that the primary notion of conceive is "take in and hold" (see, "catch"). Etymologically, conception derives from the Latin *cum* or *con* and *capere* (to catch, seize, or grasp). Although dictionaries differ in their definitions of conception and pregnancy, according to one interpretation conception begins with implantation, that is, the "catching" of the blastocyst by the endometrium.

Webster's Third New International Dictionary defines abortifacient as "inducing abortion," which is the "expulsion of a nonviable fetus." A fetus is defined as an "unborn or unhatched young vertebrate, especially after passing through the earliest developmental stages and attaining the basic structural plan of its kind."

The purpose of my report (*1*) was to suggest that the IUD acts to prevent nidation rather than to dislodge the implanted blastocyst. I should not, perhaps, have assumed that all biologists agree on the definition of conception. Interdisciplinary discussions, on the contrary, point up the lack of consensus (*2*). I am unconvinced, however, that it is "strictly scientific," as Krotoski suggests, rather than "arbitrary" to determine exactly when development of a "new individual" begins. It is equally difficult to adduce proof of the precise point at which human, as opposed to biological, life begins or at which the soul first enters the embryo.

The British Council of Churches has made the following statement, which seems consistent with the view expressed in my report:

"Our conclusion was that a distinction must be drawn between biological life and human life, and that in the absence of more precise knowledge, nidation may most conveniently be assumed to be the point at which the former becomes the latter. We agreed that abortion as a means of family limitation is to be condemned. But a woman cannot abort until the fertilized egg cell has nidated and thus becomes attached to her body . . . we see no objection . . . to the use of a technique which would prevent implantation. Such a method, which might be described as contra-nidation, could also quite properly be called contraception" (*3*).

In light of the foregoing semantic, biological, and theological considerations, I find no cogent reason to change my conclusion that the IUD is not abortifacient in the customary sense of the term.

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