

Blessing the sun: Astronomical absurdity, or spiritual encounter?

Apr. 5, 2009
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On April 8, Jews around the world will celebrate a religious happening that last took place in April 1981, and that will not occur again for another 28 years: Birkat Hahama, the blessing of the sun when it appears in the dawn as it did in the creation - at the vernal equinox on a Wednesday morning. The ceremony celebrates both halachic tradition as well as environmental awareness (not to mention global warming consciousness), and so Birkat Hahama has wide community appeal.

Unfortunately, the principles that underlie the talmudic event are grossly in error, and one may wonder whether it is silly to become so enthusiastic over a ritual mistake. The quandary is worth a particularly close look this year because, by an unusual and complete coincidence, the ceremony takes place on the morning before Passover, during the time of the fast of the firstborn and the burning of any remaining leaven - while Passover itself echoes many of the same problematic themes.

FIRST, A BIT more background. The Talmud, in its discussion of blessings, records: "He who sees the sun at its turning point, the moon in its power, the planets in their orbits and the signs of the zodiac in their orderly progress, should say, 'Blessed be He who has wrought the work of creation.' And when does this happen? Abaye said: Every 28 years, when the cycle begins again and the spring [vernal] equinox falls... on the evening of Tuesday going into Wednesday" (Berachot 59b).

Taking the year as $365\frac{1}{4}$ days long (the accepted approach), in one year the sun reappears at the equinox $\frac{1}{4}$ days later, on a Thursday morning, and so the rabbis note that it takes 28 years to return to the original Tuesday placement - the occasion for reciting the blessing.

The problem is that the year is *not* 365.25 days long. It is less than that, 365.24219 days (as was indeed known to the rabbis, although not to this accuracy). The difference might not seem like much, but over the course of 2,000 years the discrepancy in dating is more than two weeks. This is the reason that the event has slipped from the spring equinox which the Talmud alludes to - normally March 20 - to the current date of April 8. And the celebration date will continue to drift toward the summer - surely a crisis for an event that we celebrate specifically because it is supposed to mark the original spring equinox!

This same casual attitude toward the calendar results in the daily prayers for rain being said starting (currently) on December 5, rather than on November 21 as per the original talmudic intent. But because the date for the prayer for rain does not have the fixed astronomical reference that underpins the blessing of the sun, its drift into winter can be more easily shrugged off. For that matter, even Passover, "*Hag Ha'aviv* - the spring holiday" - has slipped away from the spring by more than two weeks just since talmudic times, and will eventually be celebrated in the summer. Calendrical corrections are possible in principle, but no serious attempts have been made, while some have even been resisted.

OF COURSE the paradox of blessing the sun runs much deeper. The sun was not created on March 20 either! Nor, for that matter, was it created on a Wednesday, nor 5769 years ago. It was created about 4.6 billion years ago, when the universe was about 9.1 billion years old. Just as we humans are born and mature over a period of years, so too the sun was born from an embryonic cloud of interstellar gas and dust, and gradually reached a level of maturity after hundreds of thousands of years of development. Its nuclear reactions developed not only on one special Wednesday, but over lots of them. It is irrational, is it not, to celebrate a cosmic event that did not take place?

There is a rejoinder. The rabbis mandate blessings over many wonders of nature - the sky, thunder and lightning, a rainbow, comets, the sea, the moon, the planets and more. These blessings reflect a sensitivity to the miraculous perfection, beauty and power of the world, and help us to appreciate with a combination of humility and pride our own human responsibilities. The sun-blessing is simply just such a case.

In the case of the sun, however, the rabbis ruled that it was inappropriate to utter a blessing every time we see it lest its frequent (daily) occurrence smack of sun-worship. Instead they restricted the recitation to once in 28 years. But in doing so, they transmuted the event from a simple appreciation of the sun into the celebration of a creation story with an erroneous time line.

We live in an age that is keenly aware of global warming and dwindling energy supplies, both directly involving the sun. Many have installed solar panels on their roofs, or perhaps drive hybrid cars. But while these efforts may help alleviate a vague sense of guilt, the truth is that they make no difference to the earth's health or the balance of energy - they are insignificant, with much less influence than a random, passing summer squall. It is irrational, is it not, to pretend otherwise?

Still, these actions are meant to be symbolic stances, taken in part in the hope of stimulating a coherent response from millions of people that can make a difference. Just so is the Birkat Hahama - a symbolic ritual meant to attune us to the role of the sun in our lives, and our ability to participate in its sanctification.

CONSIDER PASSOVER, the season of our redemption from Egypt. I am sometimes asked why I scour my kitchen and abstain from eating leavened bread for a whole week when I know that critical archeologists express doubts that the exodus took place as described in the Bible (though such conclusions are considerably less reliable than astronomical measurements of the sun). It is irrational, is it not, to commemorate a non-anniversary?

But historicity is irrelevant. I do not celebrate Passover because I read in a book or learned from a teacher about a story some 2,500 years old. (To me, *that* would be absurd.) I celebrate Passover to internalize and propagate its symbolic meaning: that I am free by divine redemption, part of an existential community of religious relationships, and commanded to respond to the human suffering in the world with empathy, compassion and charity.

Birkat Hahama is an astronomical absurdity. But like the Passover holiday it inaugurates this year, its significance derives not from its physical character but rather from the meaning it conveys by focusing our attention on our own moral attitudes and ethical responsibilities.

That we are able to do so is the deeper blessing of the creation and genuine cause for celebration.

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