

NOTA BREVE

HUMAN UNDERSTANDING OF SUCKLING BEHAVIOUR IN HORSES AND ITS RELATION TO MOUNTING

ENTENDIMIENTO HUMANO DEL COMPORTAMIENTO DE AMAMANTAMIENTO EN CABALLOS Y SU RELACIÓN CON MONTAR

Halloy, M.¹, S. Jerez², C. Robles^{1,2}, I. Nicolari² y F. Guglielmone²

¹Fundación Miguel Lillo. Miguel Lillo 251. 4000 San Miguel de Tucumán. Argentina.

E-mail: mhalloy@webmail.unt.edu.ar

²Facultad de Ciencias Naturales. Universidad Nacional de Tucumán. Miguel Lillo 205. 4000 San Miguel de Tucumán. Argentina.

ADDITIONAL KEYWORDS

Horses-humans. Handedness. Foal suckling. Riding.

PALABRAS CLAVE ADICIONALES

Caballos-humanos. Lateralidad. Amamantamiento de potros. Montar.

SUMMARY

Horse ranchers in NW Argentina believe a horse is mounted from the left because foals tend to suckle from that side of the mare, thus becoming more receptive. The side from which foals nursed during their first 12 weeks was recorded. A questionnaire was presented asking people from which side they mounted horses and bikes. There was no difference with respect to side from which foals suckled. Right-handed people mounted horses and bikes more from the left. Left-handed people also did so with horses (possibly learned), but not with bikes. It is suggested that left-side mounting reflects a human rather than a horse preference.

que se monta por la izquierda porque los potrillos suelen amamantarse de ese lado de la yegua, volviéndose más receptivos. Se registró el lado del cual los potrillos se amamantaban durante sus primeras 12 semanas. Se realizó una encuesta a personas preguntando de qué lado montaban caballos y bicicletas. No se encontró diferencia con respecto al lado del cual los potrillos se amamantaban. Los humanos diestros montaban caballos y bicicletas más por el lado izquierdo. Los zurdos también lo hacían con caballos (posiblemente aprendido), pero no con bicicletas. Se sugiere que la monta por el lado izquierdo refleja una preferencia humana más que equina.

RESUMEN

Criadores de caballos del NO argentino creen
The authors are grateful to J. Chani, A Echeverría, F. Escalante, J. Fiaño and S. Moro for their help during different stages of the study. They also thank R. Chacón, C. de la Jara, F. Escalante, M. Paz de Cossio, and H. Verlardez for allowing them to observe and film their horses on their ranches.

INTRODUCTION

Humans tend to explain their world based on what they see. This may lead to erroneous explanations of otherwise empirical observations sometimes referred to as anecdotal wisdom (Saslow, 2002). Among horse ranchers

Arch. Zootec. 55 (210): 211-214. 2006.

of NW Argentina, it is considered standard knowledge that humans approach and mount horses from their left side because horses *prefer* it that way. Inquiring further what was meant by a horse *preferring* to be approached from the left, it was found that it was because foals always or almost always suckle from the left side of their mothers. Although it is well recognized that training and caring for horses from the left side facilitates handling of the animal and diminishes risks, we ask, was the left side chosen because horses preferred it that way (based on suckling behaviour), or was it chosen because humans were more comfortable approaching the left side of the animal and working from that side?.

Suspecting some type of anthropomorphism, a study was done looking at, on the one hand, the horse's point of view by looking at suckling behaviour of foals, and, on the other, the human's point of view by presenting right-handed and left-handed people with a short questionnaire asking them about their preferences with respect to mounting bikes or horses from the left or the right side. It is expected that both right-handed people and left-handed people will prefer to mount horses from the left since that is standard teaching in horseback riding. However, although right-handed people might also mount a bike from the left, preferring to position themselves on the left side of the bike to pass their stronger right leg, it was hypothesized that left-handed people would not show this preference when mounting a bike. It was further hypothesized that foals would not show a preference with respect to side from which they suckled.

MATERIALS AND METHODS

A total of 42 pairs of mares-foals were studied: 5 pairs (Arab horses) were from San Andrés Ranch, Tucumán; 25 (Peruvian horses) from El Algarrobo Ranch, Tucumán and 12 (surrogate regional mares with Peruvian foals) from Los Copiangos Ranch, La Rioja, (Argentina).

Most of the horses used were part of another study on mare-foal interactions (Halloy *et al.*, 2003). A video camera Sony Hi8 was used to film suckling behaviour. Fifteen minute focal samples of each mother-young pair were made once a week (not all pairs were available each week) for recording the side of the mother on which foals suckled.

A short questionnaire was presented to 178 people, ages 13 to 64 years old, most being high school or college students (average age, 25.2 ± 10.3 yrs old; 115 women, 60 men, and 3 that did not answer the question on gender). Of the 178 people, 138 indicated that they were right-handed, 35 left-handed, 3 ambidextrous, and 2 did not answer (individuals that were ambidextrous or that had not answered one of the questions were not used in the statistical analyses). An effort was made to include more left-handed people (about 20 p.100 of the total) in order to have enough data for this group. The numbers therefore do not reflect population tendencies (current values suggest 10 p.100 of the population to be left-handed). The questionnaire consisted of the following questions:

- Which hand do you use to write?
- On which side of a bike do you place

SUCKLING BEHAVIOUR IN HORSES AND ITS RELATION TO MOUNTING

yourself when you want to ride it?
 - On which side of a horse do you place yourself to mount it?

Data were analyzed using χ^2 tests (Siegel and Castellan, 1988).

RESULTS

The percent of suckling done from the left or the right side in 42 pairs of horses is shown in **figure 1**. During weeks 1, 5 and 6, foals suckled significantly more often from the left side of the mare than from the right. However, during weeks 2, 3, 4, 7, and 11, foals suckled significantly more often from the right side of the mare. During weeks 8, 9, 10, and 12, foals showed no preference. When considering

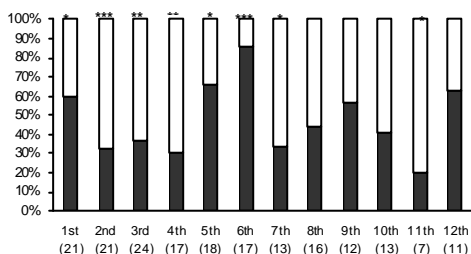


Figure 1. Percent of suckling on the left (black) and on the right (white) side of the mares, from birth to the twelfth week. Number of observations during each week is given in parentheses. Over each column is given the significant probability level for each age category (* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$). (Porcentaje de amamantamiento del lado izquierdo (negro) y derecho (blanco) de las yeguas, desde el nacimiento hasta la duodécima semana. Entre paréntesis el número de observaciones en cada semana. Arriba de cada columna: niveles de significación para cada categoría de edad (* $p < 0,05$; ** $p < 0,01$; *** $p < 0,001$)).

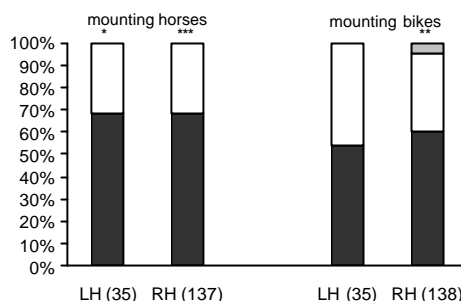


Figure 2. Percent of left-handed (LH) and right-handed (RH) people who mounted a horse from the left (black) or from the right (white) side, and who mounted a bike from the left (black) or from the right (white) or from either (grey) side. Number of individuals who answered is given in parentheses. Over each column is given the significant probability level (* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$). (Porcentaje de personas zurdas (LH) y diestras (RH) que montaron un caballo por la izquierda (negro) o la derecha (blanco), y que montaron una bicicleta por la izquierda (negro), la derecha (blanco) o cualquiera (gris). El número de individuos que contestaron está entre paréntesis. Arriba de cada columna se muestran los niveles de significación (* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$)).

all the data together (356 instances of suckling from the left versus 399 instances of suckling from the right, over 12 weeks), no significant difference was found ($\chi^2 = 2.45$, $df = 1$, $p > 0.05$).

About two-thirds of right-handed people chose the left side to mount horses or bikes and about one-half (for bikes) to two-thirds (for horses) of left-handed people chose the left side to mount (**figure 2**). Right-handed and left-handed people significantly mounted horses from the left side ($\chi^2 = 18.98$, $df = 1$, $p < 0.001$; $\chi^2 = 4.83$, $df = 1$,

$p < 0.05$, respectively). Right-handed people significantly mounted bikes from the left side ($\chi^2 = 8.76$, $df = 1$, $p < 0.01$) whereas left-handed people showed no preference from mounting bikes for either side ($\chi^2 = 0.26$, $df = 1$, $p > 0.05$).

DISCUSSION

Considering the 12 weeks of the study, foals did not show a side preference in suckling. Foals suckled from either side although there may have been individual preferences and/or age differences. Waring (1983) found that some foals in box stalls developed a preference for nursing on one side or the other but that in the pasture, the same mare-foal pairs did not show such an effect. Although there may be other reasons that have not been explored here why horses might prefer an approach from the left,

it is suggested that humans may be a better explanation. Standard training in horseback riding from the left side may be reflecting the majority of right-handed people in the population (85 to 90 p.100 of humans according to Annett, 1985, in Hopkins, 1996). In this study, right-handed people mounted from the left, whether horses or bikes, whereas left-handed people mounted from the left in the case of horses, reflecting standard teaching of horseback riding, but they did not show a preference in mounting bikes. It is therefore suggested that mounting horses from the left originated in a human rather than a horse preference. This may have important ramifications such that a left-handed owner of horses might choose to handle and train his horses from the right side for his convenience although these horses will be limited to being treated by left-handed people or people who can easily adapt to either side.

REFERENCES

- Annett, M. 1985. Left, right, hand, and brain: The right shift theory. Erlbaum, London.
- Halloy, M., S. Jerez, C. Robles, I. Nicolari, L. Marangoni, F. Guglielmono and F. Escalante. 2003. Mare-foal interactions in Peruvian horses and in Peruvian foals raised by surrogate regional mares. *Etología*, 11: 23-26.
- Hopkins, W.D. 1996. Chimpanzee handedness revisited: 55 years since Finch (1941). *Psychonomic Bulletin & Review*, 3: 449-457.
- Saslow, C. A. 2002. Understanding the perceptual world of horses. *Appl. Anim. Behav. Sci.*, 78: 209-224.
- Siegel, S. and N.J. Castellan, Jr. 1988. Nonparametric statistics for the behavioral sciences. McGraw Hill, Inc., New York.
- Waring, G.H. 1983. Horse Behavior: The behavioral traits and adaptations of domestic and wild horses, including ponies. Noyes Publications, Park Ridge, New Jersey.

Recibido: 11-3-05. Aceptado: 10-10-05.

Archivos de zootecnia vol. 55, núm. 210, p. 214.